

Prevention First

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PRIMARY CARE DIABETES
ASSOCIATION PAKISTAN

PFN-Online
PREVENTION FIRST NEWSLETTER
ONLINE

Celebrating
3 YEARS
of Excellence!

PFN-Online has been published
uninterrupted on the **15th** of every month
for the past **36** consecutive months.



**36 MONTHLY
EDITIONS**

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PROFESSIONALLY
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interviews, event coverage,
and educational resources.



Three years of **inspiring learning**,
sharing knowledge and **strengthening**
primary care diabetes practice—
one issue at a time.

Thank You

to our contributors, readers
and supporters for being part of
this remarkable journey!

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Editorial

Celebrating Three Years of PFN-Online: A Journey of Knowledge, Commitment, and Collaboration

Dear Colleagues,

It is with immense gratitude and great pride that we celebrate the **third anniversary of PFN-Online**, the official online newsletter of the **Primary Care Diabetes Association (PCDA) Pakistan**. Over the past **36 consecutive months**, PFN-Online has been published regularly on the **15th of every month**, reflecting our unwavering commitment to professional education, scientific communication, and the dissemination of evidence-based knowledge.

What began as a modest initiative has grown into a respected educational platform, delivering more than **1,500 pages** of high-quality scientific and academic content to healthcare professionals across Pakistan and beyond. Every issue has carried our shared vision of promoting excellence in primary care diabetes management through continuous learning, collaboration, and the exchange of knowledge.

On this special occasion, I extend my heartfelt appreciation to the present and past **Presidents and members of the Central Cabinet of PCDA Pakistan**, whose leadership, guidance, and encouragement have been instrumental in the growth and success of PFN-Online. Their unwavering support has enabled the newsletter to flourish as an important educational resource for healthcare professionals.

We also express my sincere gratitude to the **esteemed members of the Supreme Council of PCDA Pakistan**. Their wisdom, experience, and strategic direction continue to strengthen our organization and inspire initiatives that advance diabetes prevention, education, and quality patient care throughout the country.

Our deepest appreciation goes to all **Regional Heads and their dedicated committees**, whose tireless efforts have expanded the reach of PCDA across Pakistan. Their enthusiasm in organizing scientific meetings, educational activities, awareness campaigns, and community outreach programs has provided a wealth of valuable content for the newsletter while strengthening our nationwide network.

We would also like to acknowledge the remarkable contributions of our **Chapter Heads**, who have consistently demonstrated leadership and commitment in promoting the objectives of PCDA at the grass-roots level. Through their regular reports, scientific activities, and local initiatives, they have transformed PFN-Online into a true reflection of the vibrant academic life of our association. *Contd.....*

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We also extend our heartfelt gratitude to the esteemed patrons of PCDA Pakistan—**Prof. Abdul Basit, Prof. M. Zaman Shaikh**, and our late Founder President, **Dr. Syed Mansoor Ali Khan**—whose visionary leadership and unwavering guidance have shaped the journey of our organization. Their wisdom, vast experience, and strategic insight have laid the foundation for what PCDA Pakistan has become today. Their enduring legacy continues to inspire our mission and strengthen our commitment to advancing diabetes prevention, education, and high-quality patient care across Pakistan.

To all **general members of PCDA Pakistan**, I extend my sincere thanks. Your participation, scientific contributions, feedback, photographs, articles, case reports, and continued readership have made this newsletter both meaningful and relevant. PFN-Online belongs to every member of our association, and its success is a direct result of your active engagement.

I wish to offer special recognition to the **Editorial Board**, whose dedication, professionalism, and meticulous work behind the scenes have ensured the timely publication of every issue. Preparing a monthly scientific newsletter demands careful planning, editing, design, proof-reading, coordination, and quality assurance. Their commitment to maintaining high editorial standards deserves our highest appreciation.

PFN-Online has become much more than a newsletter. It is an educational bridge connecting healthcare professionals across regions, a platform for sharing scientific knowledge, a record of the remarkable achievements of PCDA Pakistan, and a source of inspiration for clinicians committed to improving diabetes care. By publishing clinical updates, expert opinions, research highlights, interviews with distinguished healthcare professionals, reports of academic activities, and public health initiatives, the newsletter has played a significant role in advancing the aims and objectives of PCDA Pakistan.

The newsletter has strengthened communication among our members, encouraged collaboration between chapters, promoted evidence-based clinical practice, and showcased the collective efforts of our organization. It has also helped highlight the outstanding work being carried out by our regional chapters, task forces, committees, and partner organizations, reinforcing the spirit of unity that defines PCDA Pakistan.

As we celebrate this important milestone, we also look ahead with renewed enthusiasm. The future of PFN-Online lies in continued innovation, broader participation, and an even stronger commitment to scientific excellence. We invite every member of PCDA Pakistan to contribute articles, clinical experiences, research updates, opinion pieces, educational material, and reports of academic activities, making the newsletter an even richer source of learning for our professional community.

On behalf of the Editorial Board, we extend my deepest gratitude to everyone who has contributed to this remarkable journey. Your trust, encouragement, and unwavering support have transformed PFN-Online into a respected voice for primary care diabetes education in Pakistan.

Together, let us continue to uphold the spirit of **"Prevention First"**, strengthen primary care, promote lifelong learning, and work collectively toward a healthier Pakistan.

Happy 3rd Anniversary to PFN-Online!

In-Charge, Chief Editor and the Editorial Board of PFN-Online Newsletter



Primary Care Diabetes Association
Pakistan

Prevention First - **ONLINE**
Newsletter of PCDA Pakistan



★ H A P P Y ★
INDEPENDENCE DAY

CELEBRATING FREEDOM, UNITY & PROGRESS

PCDA Pakistan

Leading the Journey to a
Diabetes-Free Pakistan

Prevention First, Diabetes Last

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Strong Nation. Healthy Nation.
Together for a Better Tomorrow.



PRIMARY CARE DIABETES ASSOCIATION PAKISTAN

Prevention First, Care Always



NOTIFICATION

The Executive Committee and Central Cabinet of PCDA Pakistan, following a series of discussions and after obtaining the consent of the concerned office-bearers, have approved the following designations

1



Dr. Farasat Ali Shah

former Head of the Khyber Pakhtunkhwa (KPK) Region of PCDA Pakistan, has been designated as a **Member of the Supreme Council** of PCDA Pakistan.

2



Prof. Dr. Arshad Hussain

Head of the Peshawar Chapter of PCDA Pakistan, has been designated as the new **Head of the Khyber Pakhtunkhwa (KPK) Region** of PCDA Pakistan.



The above designations have been duly approved by the **Supreme Council** and the **Executive Committee** of PCDA Pakistan.



These designations shall take effect **immediately**



All Regional Heads, Chapter Heads, Heads of Wings, and relevant committees are hereby informed of these **designations** and are requested to extend their full cooperation to the newly appointed office-bearers.



We congratulate **Dr. Farasat Ali Shah** and **Prof. Dr. Arshad Hussain** on their new responsibilities and wish them every success in their respective roles.

Dr. Riasat Ali Khan
(President)
PCDA Pakistan



Dr. Shahid Akhter
(General Secretary)
PCDA Pakistan



PRIMARY CARE DIABETES ASSOCIATION PAKISTAN

Member of IDF

Ref: Notifications/02/26

Date: 14-08-2026

NOTIFICATION

The Executive Committee and Central Cabinet of the Primary Care Diabetes Association (PCDA) Pakistan, following a series of discussions and after obtaining the consent of the concerned office-bearers, have approved the following designations:

1. **Dr. Farasat Ali Shah**, former Head of the Khyber Pakhtunkhwa (KPK) Region of PCDA Pakistan, has been designated as a **Member of the Supreme Council of PCDA Pakistan**.
2. **Prof. Dr. Arshad Hussain**, Head of the Peshawar Chapter of PCDA Pakistan, has been designated as the **new Head of the Khyber Pakhtunkhwa (KPK) Region of PCDA Pakistan**.

The above designations have been duly approved by the **Supreme Council and the Executive Committee of PCDA Pakistan**.

These designations shall **take effect immediately**.

All Regional Heads, Chapter Heads, Heads of Wings, and relevant committees are hereby informed of these designations and are requested to extend their full cooperation to the newly appointed office-bearers.

We congratulate **Dr. Farasat Ali Shah** and **Prof. Dr. Arshad Hussain** on their new responsibilities and wish them every success in their respective roles.

Dr. Riasat Ali Khan
President
PCDA Pakistan

Dr. Shahid Akhter
General Secretary
PCDA Pakistan

Founder:

Dr. Syed Mansoor Ali
(Late)

President:

Dr. Riasat Ali Khan

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Central:

Dr. Ahmad Shahzad

North (KPK):

Dr. Farasat Tirmizi

Federal:

Dr. Shehzad Tahir

GB/AJK:

Dr. M. Saleem Khan

Prevention First

*Greeting
Messages
on
The
Occasion
of*





Message By: Prof. Abdul Basit



Dear Members of the PCDA Family,
Assalam-o-Alaikum.

Alhamdulillah, it is a matter of immense pleasure and gratitude to witness PFN-Online completing three successful years of its uninterrupted journey of learning, sharing, and serving. I extend my heartfelt congratulations to the Editorial Board, under the dedicated leadership of **Dr. Shahid Akhter**, and to every contributor whose commitment has transformed this newsletter into an important academic platform for healthcare professionals across Pakistan.

From its very inception, the Primary Care Diabetes Association (PCDA) Pakistan under the very able leadership of **Dr. Riasat Ali Khan** has stood firmly on one simple yet powerful principle: "Prevention First." Prevention is not merely a slogan; it is a philosophy that reminds us that every patient educated, every risk factor addressed, and every healthcare professional empowered is a step towards reducing the burden of diabetes in our society.

What inspires me most is that this success has not been achieved by individuals working in isolation. It is the result of teamwork, mutual respect, and a shared vision. Every member of the Central Cabinet, the Supreme Council, Regional and Chapter leadership, the Editorial Board, our students, educators, and volunteers has contributed to this journey. When people unite with sincerity of purpose, differences become strengths, challenges become opportunities, and remarkable achievements become possible.

Throughout my professional life, I have remained convinced that knowledge carries little value unless it is shared, and leadership carries little meaning unless it nurtures others. One of the greatest responsibilities of every healthcare professional is to mentor the next generation—to encourage young doctors, inspire students, and create opportunities for continuous learning. I am delighted that PCDA has cultivated this culture of mentorship, collaboration, and lifelong education, and PFN-Online has become one of its finest expressions.

As healthcare professionals, our ultimate purpose extends beyond treating disease. As we celebrate this third anniversary, let us not regard it as the destination but as another milestone in a much longer journey. The challenges posed by diabetes continue to grow, and so must our resolve. Let us continue to learn, to teach, to collaborate, and to innovate. Let us strengthen primary care, empower our colleagues, and ensure that quality diabetes prevention and care reach every community in Pakistan.

I congratulate the Editorial Board and the entire PCDA family for this remarkable achievement. May Almighty Allah continue to bless your sincere efforts, grant you wisdom and strength, and enable PCDA Pakistan to remain a beacon of knowledge, compassion, and service. Together, with faith, unity, and the spirit of "Prevention First," I am confident that we can build a healthier Pakistan and move ever closer to our shared vision of making Pakistan diabetes-free.

With my prayers and best wishes,

Prof. Abdul Basit

Patron Primary Care Diabetes Association (PCDA) Pakistan





Message By: Prof. Zaman Shaikh



It is a matter of great pleasure and personal satisfaction for me to congratulate the Primary Care Diabetes Association (PCDA) Pakistan on the 3rd Anniversary of PFN-Online, its official newsletter.

Having been associated with PCDA Pakistan as a teacher since its formative years, I have had the privilege of witnessing its journey, growth and transformation into an increasingly vibrant platform for primary care physicians and diabetes professionals. I am particularly pleased to see how PCDA has continued to uphold the values of education, prevention, capacity building, teamwork and service to humanity.

PFN-Online is an important reflection of this journey. Over the past three years, it has developed into a meaningful forum for sharing scientific knowledge, clinical updates, professional achievements, chapter activities and the remarkable contributions of PCDA members across Pakistan. Its regular publication and expanding scope are a testimony to the commitment of the editorial team.

I would like to place on record my special appreciation for **Dr. Shahid Akhter**, whose dedication, enthusiasm and tireless efforts have played a pivotal role in establishing and sustaining PFN-Online. Maintaining a quality professional newsletter month after month requires vision, commitment, discipline and teamwork, and Dr. Shahid Akhter and his editorial colleagues deserve sincere appreciation for this commendable achievement.

I am also proud of the entire PFN-Online Editorial Board, whose collective efforts have transformed the newsletter into an effective vehicle for academic communication within PCDA Pakistan. Their work is not merely about publishing a newsletter; it is about creating opportunities for learning, recognition, collaboration and professional development.

As a mentor, it gives me great satisfaction to see the younger generation of physicians within PCDA coming forward, contributing academically and taking responsibility for strengthening the organisation. I strongly believe that the future of diabetes care in Pakistan depends upon such a spirit of continuous learning, mentorship, teamwork and commitment to primary care.

On this important milestone, I extend my heartfelt congratulations to **Dr. Riasat Ali Khan**, the Central Cabinet of PCDA Pakistan, Dr. Shahid Akhter, the PFN-Online Editorial Board, chapter heads, members and all contributors who have made these three years possible.

May PFN-Online continue to flourish, inspire medical professionals, disseminate knowledge and become an even stronger voice for diabetes prevention, education and excellence in primary care.

Congratulations to the entire PCDA family on three successful years of PFN-Online. I wish the newsletter many more years of growth, academic excellence and meaningful service to the medical community and the people of Pakistan.

Prof. Dr. M. Zaman Shaikh, Professor of Medicine
Vice President (Academics), Diabetic Association of Pakistan
Former Director, National Institute of Diabetes and Endocrinology
Patron Primary Care Diabetes Association (PCDA) Pakistan





Message By:

Dr. Riasat Ali Khan



Dear Members of the PCDA Family,

It gives me immense pleasure and a deep sense of pride to congratulate the entire **PCDA Pakistan family** and, in particular, the dedicated **Editorial Board of PFN-Online**, on the successful completion of **three remarkable years** of this important publication.

PFN-Online has grown into much more than a newsletter. Over the past three years, it has become a vibrant platform for **knowledge sharing, professional communication, education, and recognition of the tremendous work being carried out by PCDA members and chapters across Pakistan**. It has provided an opportunity to share scientific updates, clinical insights, educational initiatives, chapter activities, and the achievements of our colleagues with the wider diabetes community.

I would like to sincerely **thank and appreciate Dr. Shahid Akhter and every member of the Editorial Board** for their commitment, creativity, and perseverance in bringing out each issue. Maintaining a regular publication for three consecutive years requires discipline, teamwork, and a genuine passion for the cause. Your efforts deserve our highest appreciation.

Our journey is guided by the philosophy of **“Prevention First.”** We strongly believe that strengthening primary care, educating healthcare professionals, promoting early detection, encouraging healthy lifestyles, and empowering communities are essential steps in addressing the growing diabetes epidemic. PFN-Online has played an important role in supporting this vision by keeping our members connected and continuously engaged in learning.

I am particularly proud that PCDA has developed a culture of **teamwork, mentorship, education, and service**. From our senior mentors and experienced clinicians to our young doctors, students, and volunteers, everyone has an important role to play. Our strength lies in working together and creating opportunities for the next generation to learn, lead, and serve.

As we celebrate three successful years of PFN-Online, I encourage the Editorial Board and the entire PCDA family to look ahead with even greater enthusiasm. Let us continue to raise the standards of primary diabetes care, promote evidence-based practice, encourage research and innovation, and take our message of prevention and awareness to every corner of Pakistan.

Three years is an important milestone—but it is only the beginning of a much greater journey.

My heartfelt congratulations once again to the **PFN-Online Editorial Board and the entire PCDA Pakistan team**. Thank you for your dedication, your teamwork, and your unwavering commitment to the cause of diabetes prevention and better care.

May Allah bless our collective efforts and give us the strength and wisdom to continue serving humanity and working towards a **healthier and diabetes-free Pakistan**.

With warmest regards and best wishes,

Dr. Riasat Ali Khan

President Primary Care Diabetes Association (PCDA) Pakistan





Message By:

Prof. Aamir Shaukat**From the Desk of Prof. Dr. Aamir Shaukat****Dear Members, Colleagues, and Healthcare Pioneers,**

It brings me immense joy and pride to extend my warmest congratulations to the entire fraternity on the successful launch of the 36th edition of the Primary Care Diabetes Association (PCDA) Pakistan Newsletter. Reaching this milestone of 36 successive editions is a testament to our steadfast commitment to medical journalism, continuous professional development, and clinical education. A publication of this consistency plays an indispensable role in shaping clinical practice across the country, serving as a scientific beacon for general practitioners, consultants, and postgraduate trainees alike who operate on the frontlines of metabolic care.

As we look at the compounding public health landscape of Pakistan, the challenge presented by diabetes remains monumental. In this battle, our mother society, PCDA, stands as a premier national institution driving systematic change. By uniting primary care physicians under a unified educational umbrella, PCDA has successfully bridge the gap between complex global clinical guidelines and practical, everyday patient care. The academic initiatives, regional symposia, and standardized training modules structured by our mother society have elevated the benchmark of metabolic management across healthcare tiers.

However, the vision of PCDA cannot achieve true national efficacy without powerful, localized execution. This is precisely where our sister concern, the Lyallpur Diabetes Foundation (LDF), comes into play. Operating with a shared mission and perfectly aligned objectives, LDF functions as a robust, action-oriented arm of PCDA. Over the years, the work done by LDF has been exemplary, turning strategic guidelines into impactful grassroots realities. Through massive public awareness campaigns, free localized diagnostic screenings, and educational workshops tailored for family physicians, LDF has successfully addressed the barriers to accessible diabetes care in the region.

The synergy between PCDA as the foundational academic mother society and LDF as the dedicated sister organization exemplifies how institutional collaboration can multiply public health outcomes. While PCDA designs the nationwide educational architecture and structural frameworks, LDF executes on-ground interventions that touch the lives of thousands of underprivileged patients. Together, we share a singular, uncompromising objective: to curb the rising tide of diabetes, minimize debilitating complications, and ensure that premium metabolic healthcare is accessible to every corner of Pakistan.

As we celebrate this 36th literary milestone, I urge all our members to utilize this newsletter as an active platform for knowledge exchange. Let us deepen our collaborative ties, expand our clinical outreach, and continue supporting the joint ventures of PCDA and LDF. Our journey is far from over, but with our shared values, institutional dedication, and collaborative spirit, we will continue to redefine the landscape of diabetes care in Pakistan.

I commend the editorial board for their tireless efforts and wish our medical community continued success in all our future academic and humanitarian endeavors.

Prof. Dr. Aamir Shaukat

Pro Vice Chancellor Faisalabad Medical University (FMU)

Patron-In-Chief Lyallpur Diabetes Foundation (LDF)

Star Member of Primary Care Diabetes Association (PCDA)





Message By:

Dr. Ahmad Shahzad



From the Desk of:

The Head of Central Regional of PCDA Pakistan

Dr. Ahmad Shahzad

Dear Dedicated Professionals and Friends,

It is a moment of profound professional fulfillment as we unveil the 36th edition of the Primary Care Diabetes Association (PCDA) Pakistan Newsletter. This publication has evolved over the years into a vital academic archive, capturing our shared triumphs, groundbreaking clinical updates, and our ongoing struggle against the diabetes epidemic. I offer my deepest appreciation to the contributors, peer-reviewers, and the visionary leadership team whose unwavering commitment ensures that this educational vehicle reaches our community with uninterrupted excellence.

For me, PCDA is not merely an organization; it is our mother society that has nurtured the concept of structured primary care diabetology in Pakistan. Before the inception of PCDA, primary care physicians often operated without a standardized, focused platform for metabolic education. Our mother society stepped into this void, establishing a nation-wide network of chapters that empowers the general practitioner to become a highly competent specialist in primary diabetes management. Through specialized educational wings, standardized clinical guidelines, and high-impact regional sessions, PCDA has profoundly transformed how the early stages of metabolic disorders are detected and managed across Pakistan.

The journey to this 36th edition has been a true monumental success story, and it would be remiss of me not to pay a special, deeply deserved tribute to our extraordinary executive team. I want to highlight the untiring, selfless efforts of **Dr. Riasat Ali Khan** and **Dr. Shahid Akhtar**. Their unmatched dedication, strategic foresight, and round-the-clock hard work have been the driving force behind the association's stellar growth. Alongside them, our entire executive committee has worked with seamless coordination and relentless passion, turning every logistical hurdle into an opportunity for academic excellence. It is their collective grit and vision that has transformed PCDA into the powerhouse it is today.

In perfect alignment with this overarching vision, the Lyallpur Diabetes Foundation (LDF) operates proudly as a vital sister concern of PCDA. Our missions are identical, and our ultimate objectives are fully interwoven. While PCDA focuses heavily on the macro-level organizational frameworks, international research collaborations, and national policy advocacy, LDF takes those very ideals down to the communities that need them most. The extensive work executed by LDF—ranging from organizing mega-screening camps and patient counseling sessions to arranging localized CME seminars for practitioners—has created an invaluable support system for the regional healthcare infrastructure.

The seamless collaboration between PCDA and LDF showcases the power of shared institutional synergy. A prime example of this unified strength is our joint organization of major scientific events, such as the highly successful Diabetes Pakistan Conferences, which gather international and national experts, bridging academic research with practical community outreach. By operating with a singular pulse, PCDA and LDF ensure that clinical excellence in the seminar hall translates directly into empathetic, high-quality care at the patient's bedside.

Moving forward, the responsibilities resting upon our shoulders are immense, as Pakistan faces a steep rise in metabolic health burdens. To counter this effectively, we must continue to reinforce the bond between our mother organization and its sister concerns. Let this 36th newsletter edition serve as an open invitation to every reader to actively engage with both PCDA and LDF initiatives. By combining our intellectual resources, expanding our on-the-ground screening drives, and remaining true to our foundational mission, we can create a healthier, diabetes-aware Pakistan. I congratulate everyone involved in this successful launch and look forward to scaling even greater heights together.

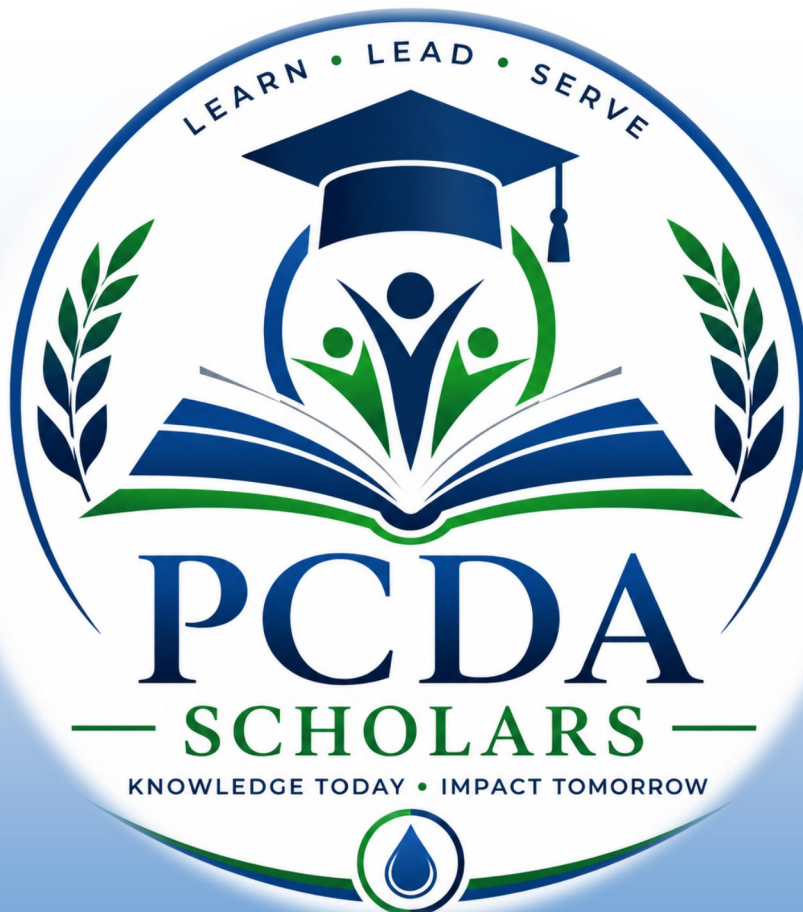
Dr. Ahmad Shahzad



Prevention First



Scholarly Articles by



Faith-Based Diabetes Prevention: Lessons for the 57 OIC Member States

Bishwajit Bhowmik, Tasnima Siddiquee, **Abdul Basit¹**, Mesbah S. Kamel², Adel A. El Sayed³, Mohamed Ali Eltom⁴, Nadima Shegem⁵, Abdulla Al-Hamaq⁶, Mohamed Hassanein⁷, Asher Fawwad⁸, Ashraf P. Valappil⁶, Rachid Malek⁸, Peter E. H. Schwarz⁹, Amit Gupta⁹, Banshi Saboo¹⁰, Shashank R. Joshi¹¹, Vishwanathan Mohan¹², Mads H. Jensen¹³, Anil Kapur¹³, Satoshi Kaneko¹⁴, Syed Z. Hossain¹⁵, Mohamed R. Amin¹⁵, A. K. Khan Azad

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The global burden of type 2 diabetes mellitus (T2DM) continues to rise at an alarming pace, disproportionately affecting low- and middle-income countries (LMICs).^[1] Nearly three-quarters of people living with diabetes now reside in these settings, where health systems face constraints in financing, workforce, and access to long-term preventive care. In many Muslim-majority countries, diabetes prevalence is increasing alongside rapid urbanisation, dietary transitions, physical inactivity, and population ageing. Although clinic-based lifestyle interventions have demonstrated efficacy in controlled settings, their equitable and sustainable implementation at scale remains challenging. Against this backdrop, culturally grounded, community-embedded approaches are urgently needed.

Faith institutions remain among the most trusted, accessible, and influential social structures in many societies. Religious leaders often shape norms, behaviours, and collective priorities, particularly in matters linked to daily life and moral responsibility. This insight has prompted growing interest in faith-based health promotion models, where prevention messages are embedded within religious teachings and delivered through existing congregational networks. Evidence from diverse contexts suggests that such approaches can enhance reach, acceptability, and adherence—critical ingredients for diabetes prevention.

EVIDENCE FROM FAITH-BASED INTERVENTIONS

One of the earliest and most cited examples is the Body and Soul programme conducted through African American churches in the United States.^[2] This dietary intervention demonstrated that faith-anchored messaging, pastoral leadership, and peer support could significantly improve fruit and vegetable intake and related health behaviours at the community level, illustrating how churches can function as effective platforms for chronic disease prevention.^[2] Although implemented in a high-income setting, the programme underscored a transferable principle: trusted faith leaders can translate health advice into culturally resonant action.

Similarly, a mosque-based physical activity intervention among South Asian Muslim women in Ontario, Canada showed improvements in participation and acceptability when exercise promotion was delivered in a familiar religious and social environment.^[3] These findings highlighted the role of mosques not only as places of worship but also as safe community spaces—particularly for women—where lifestyle interventions can be contextualised and normalised.

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THE BANGLADESH EXPERIENCE: DIABETES PREVENTION THROUGH RELIGIOUS LEADERS

Building on these global experiences, the Diabetic Association of Bangladesh (BADAS), in partnership with key government stakeholders—including the Islamic Foundation under the Ministry of Religious Affairs and the Non-Communicable Disease Control (NCDC) Program of the Ministry of Health and Family Welfare—as well as the World Diabetes Foundation (WDF), designed and implemented the Diabetes Prevention through Religious Leaders (DPRL) program.^[4] This initiative trained imams and female religious assistants to integrate key lifestyle messages—healthy diet, regular physical activity, avoidance of tobacco, and early screening—into Friday sermons (khutbahs), counselling sessions, and mosque-based “diabetes corners.” These corners provided basic screening, referral, and health education, supported by digital data capture and linkage with the national diabetes registry.

The effectiveness of this approach was demonstrated in a rigorous cluster-randomized clinical trial conducted in rural Bangladesh. Over a 12-month period, a culturally adapted, mosque-based lifestyle intervention led by trained religious leaders resulted in a 42.5% relative risk reduction (absolute risk reduction 7.3 percentage points; $P = .002$; hazard ratio 0.75, 95% CI 0.60–0.95; $P = .02$) in incident T2DM among adults with prediabetes, alongside significant improvements in weight, glycaemic indices, blood pressure, lipid profile, physical activity, diabetes knowledge, and quality of life.^[5] Notably, these benefits were achieved within existing community structures, without reliance on intensive clinical resources.

Although mosque-based clustering may raise concerns regarding potential selection bias—given that individuals attending religious institutions may differ in health behaviours—participant recruitment was conducted through community-wide screening using validated diabetes risk scores and oral glucose tolerance testing, independent of regular mosque attendance. Baseline characteristics were comparable between intervention and control clusters, and district-stratified randomization minimized systematic bias.

Beyond measurable clinical effects, the program achieved strong community engagement and high retention rates. The initiative has since been recognized by the World Health Organization under the Global Diabetes Compact and highlighted by the WHO South-East Asia Region’s SEAHEARTS platform as a best-practice example of faith-based engagement in non-communicable disease prevention.^[6]

A CASE FOR SCALING ACROSS OIC MEMBER STATES

The Organisation of Islamic Cooperation (OIC) comprises 57 Member States spanning South-East Asia, South Asia,

the Middle East, Africa, and parts of Europe—regions that collectively bear a substantial and growing share of the global diabetes burden. Despite diversity in language, culture, and health-system capacity, these countries share common religious institutions, values, and congregational practices. Mosques, madrasas, and affiliated community networks reach millions of people weekly, often extending into rural and underserved areas where formal health services are limited.

Scaling a faith-based diabetes prevention model through OIC platforms offers several strategic advantages. First, it enables dissemination of prevention messages aligned with Islamic principles of moderation and stewardship of health. Second, it leverages existing human resources—religious leaders—who require modest training. Third, it facilitates structured South–South knowledge exchange, whereby OIC Member States can share standardized curricula for religious leaders, sermon guides integrating health and faith principles, digital monitoring systems, and implementation toolkits. Such collaboration allows contextual adaptation while maintaining fidelity to core evidence-based components.

The Bangladesh experience demonstrates that such programmes can move beyond awareness-raising to measurable clinical impact. Importantly, such models are not intended to replace health-system-led prevention strategies, but rather to complement them by strengthening community engagement, improving early detection and referral, and supporting sustained lifestyle change.

POLICY AND RESEARCH IMPLICATIONS

For OIC Member States, adopting a coordinated faith-based diabetes prevention strategy could accelerate progress towards national NCD targets and the Sustainable Development Goals (SDGs), particularly SDG 3.4 on reducing premature mortality from NCDs.

Ministries of health, religious affairs, and education can jointly endorse standardised training curricula, sermon guides, and monitoring frameworks. Digital tools—already piloted in Bangladesh—can support data collection, quality assurance, and linkage with national registries, enabling evaluation at scale.

A formal cost-effectiveness analysis was not conducted within the trial; however, the intervention leveraged existing mosque infrastructure and volunteer networks, resulting in minimal incremental costs compared with clinic-based programmes. Future multi-country economic evaluations are warranted to quantify cost per case of diabetes prevented and long-term return on investment.

Adaptation to urban settings may require hybrid delivery models involving workplace mosques, Islamic community centres, women’s groups, and digital dissemination of sermons. Integration with primary healthcare systems

and national NCD registries will be essential to ensure continuity of screening, referral, and long-term follow-up.

CONCLUSION

The convergence of rising diabetes prevalence, constrained health systems, and deeply rooted faith institutions presents a unique opportunity. Evidence from churches, mosques, and, most recently, a large-scale randomised trial in Bangladesh shows that religious leaders can be powerful allies in diabetes prevention. By mobilising this approach across 57 OIC Member States, the global community can harness faith as a force for health—transforming sermons into sustained lifestyle change and moving prevention from clinics into the heart of communities.

Authors' contribution

BB conceived the manuscript and drafted the initial text. All authors contributed to critical revision for intellectual content and approved the final version.

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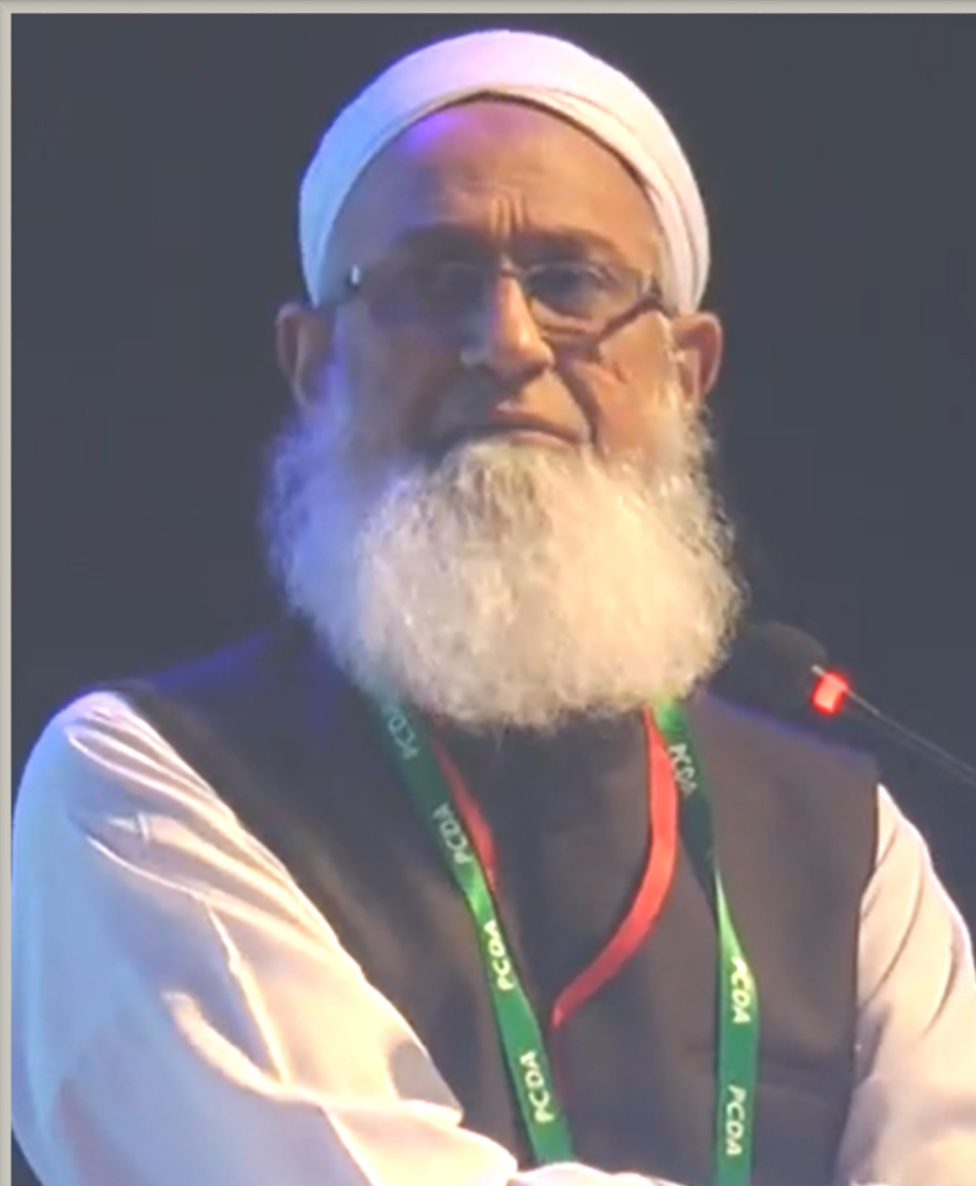
Nil.

Conflicts of interest

There are no conflicts of interest.

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PCDA, Lyallpur Diabetes Foundation and Faisal Medical University Hold Academic Session on Obesity Awareness

Reports: Dr. Ahmad Shahzad



Faisalabad: Continuing its commitment to advancing evidence-based primary healthcare and addressing the growing burden of metabolic diseases, the **Primary Care Diabetes Association (PCDA) Pakistan**, in collaboration with the **Lyallpur Diabetes Foundation (LDF)** and **Faisal Medical University (FMU)**, Faisalabad, organized a high-profile academic session titled **"Advancing Obesity Awareness Through Scientific Education and Multidisciplinary Discussion."**

The scientific gathering brought together leading academicians, physicians, endocrinologists, and healthcare professionals to discuss the rapidly increasing prevalence of obesity and its profound impact on diabetes, cardiovascular diseases, and other metabolic disorders. The event provided an excellent platform for exchanging the latest scientific evidence, clinical experiences, and practical strategies for improving obesity prevention and man-

agement in Pakistan.

The **Vice Chancellor of Faisal Medical University, Prof. Amir Shoukat**, graced the occasion as the chief speaker. In his keynote address, he highlighted obesity as one of the most pressing public health challenges of the modern era and emphasized the importance of coordinated efforts among healthcare institutions, academic organizations, and primary care physicians. He underscored the need for continuous medical education, multidisciplinary collaboration, and community awareness to effectively combat the obesity epidemic and reduce its long-term health consequences. He said Advancing obesity awareness requires treating it as a complex, chronic disease rather than a simple failure of personal will. Scientific education bridges the gap between complex molecular research and clinical care, while a multidisciplinary team ensures comprehensive patient management

The academic session featured informative presentations by **Dr. M. Sohail Anjum** and **Dr. Ahmad Shahzad**, who shared current scientific evidence, recent advances, and practical approaches to obesity management. Their presentations focused on the evolving understanding of obesity as a chronic, relapsing disease requiring comprehensive, patient-centered care that integrates lifestyle modification, behavioral interventions, pharmacotherapy, and appropriate long-term follow-up.

The proceedings were skillfully moderated by **Dr. Tanveer Hussain**, who facilitated interactive discussions and encouraged active participation from the audience.

The panel discussion that followed enriched the scientific value of the event, with distinguished experts **Prof. Dr. Mirza Akmal Sharif, Dr. Rehan Riaz, Dr. Kamran Ali, and Dr. Sumaira Abbasi** sharing their perspectives on multidisciplinary obesity care, the challenges faced in routine clinical practice, and strategies for implementing evidence-based management in primary care settings.

Participants actively engaged in discussions on emerging therapeutic options, patient education, early intervention, and the critical role of multidisciplinary teams in achieving sustainable weight management and improving metabolic outcomes. The interactive exchange of ideas reflected the growing recognition that successful obesity management requires collaboration among physicians, nutritionists, diabetes educators, and other healthcare professionals.

The event reaffirmed the shared commitment of **PCDA Pakistan, Lyallpur Diabetes Foundation, and Faisal Medical University** to strengthening professional education and fostering scientific collaboration aimed at improving patient care. Through such academic initiatives, the collaborating organizations continue to equip healthcare professionals with the latest knowledge and evidence-based practices to address one of the most significant healthcare challenges of our time.



Concluding the session, the organizers reiterated their collective resolve to promote obesity awareness, encourage multidisciplinary management, and enhance metabolic healthcare across Pakistan through sustained scientific education and collaborative academic activities. The program was widely appreciated by participants, who described it as a valuable opportunity for learning, professional networking, and updating their clinical practice in line with current scientific evidence.



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Beyond HbA1c:

EMPAGLIFLOZIN'S ROLE IN PROTECTING THE HEART, KIDNEYS & MORE

Dr. Riasat leads an engaging RTD for Primary Care Physicians

Karachi: *"Diabetes management is no longer just about lowering blood glucose—it is about protecting the patient from the complications that threaten life and quality of life."* This important message was at the heart of an engaging and highly interactive Round Table Discussion (RTD) held at **Boss Café, Karachi**, where **Dr. Riasat Ali Khan**, President of PCDA Pakistan and a renowned endocrinologist and diabetologist, addressed a gathering of primary care physicians.

The academic session, titled **"Role of Empagliflozin—Beyond HbA1c Control,"** explored the expanding role of empagliflozin in the comprehensive management of type 2 diabetes. The discussion highlighted how contemporary diabetes therapy is increasingly moving beyond a glucose-centric approach toward **cardio-vascular, renal and overall metabolic protection**.

From Glucose Control to Organ Protection

Dr. Riasat Ali Khan emphasized that while HbA1c remains an important parameter for assessing glycemic control, it should not be the sole determinant of therapeutic decisions. The modern approach to diabetes management requires physicians to consider the patient's **cardiovascular risk, kidney health and potential for long-term complications** when selecting treatment.

During his presentation, Dr. Riasat discussed the multiple clinical benefits associated with empagliflozin and its role in reducing the burden of major diabetes-related complications. He particularly highlighted its **cardio-renal benefits**, emphasizing the importance of protecting vital organs while simultaneously achieving appropriate glycemic control.

He explained that the growing body of evidence surrounding SGLT2 inhibitors has transformed the way physicians view these agents. Their clinical value extends beyond their glucose-lowering action, making them an important component of a more comprehensive strategy for selected patients with type 2 diabetes.





An Interactive Exchange of Clinical Experience

The presentation was followed by an energetic and thought-provoking discussion. Primary care physicians actively participated, raising questions and sharing their clinical experiences regarding the use of empagliflozin in everyday practice.

The interactive format allowed participants to explore practical aspects of treatment, including patient selection, the importance of cardiovascular and renal risk assessment, and the place of newer therapies in the evolving diabetes treatment landscape.

Dr. Riasat encouraged primary care physicians to adopt a **patient-centered and complication-focused approach**, reminding them that the ultimate objective of diabetes treatment is not simply to achieve a satisfactory HbA1c but to **prevent complications, preserve organ function and improve long-term outcomes**.

A Strong Message for Primary Care

The RTD reinforced the pivotal role of primary care physicians in the early identification and comprehensive management of diabetes and its associated cardiovascular and renal risks.

The session also reflected the commitment of **PCDA Pakistan** to continuing medical education and to equipping primary care physicians with contemporary, evidence-based knowledge for better diabetes care.

The gathering concluded on a positive note, with participants appreciating the opportunity for an open academic dialogue with one of the city's leading experts in endocrinology and diabetology.

KEY MESSAGES

HbA1c is important—but it is not the whole story.

➔Think Beyond Glycemic Control

Diabetes treatment should address not only blood glucose but also the prevention of long-term complications.

→Protect the Heart

Cardiovascular risk assessment should be an integral part of treatment decisions in people with type 2 diabetes.

→Protect the Kidneys

The cardio-renal benefits of SGLT2 inhibition have added a new dimension to diabetes management.

→Individualize Treatment

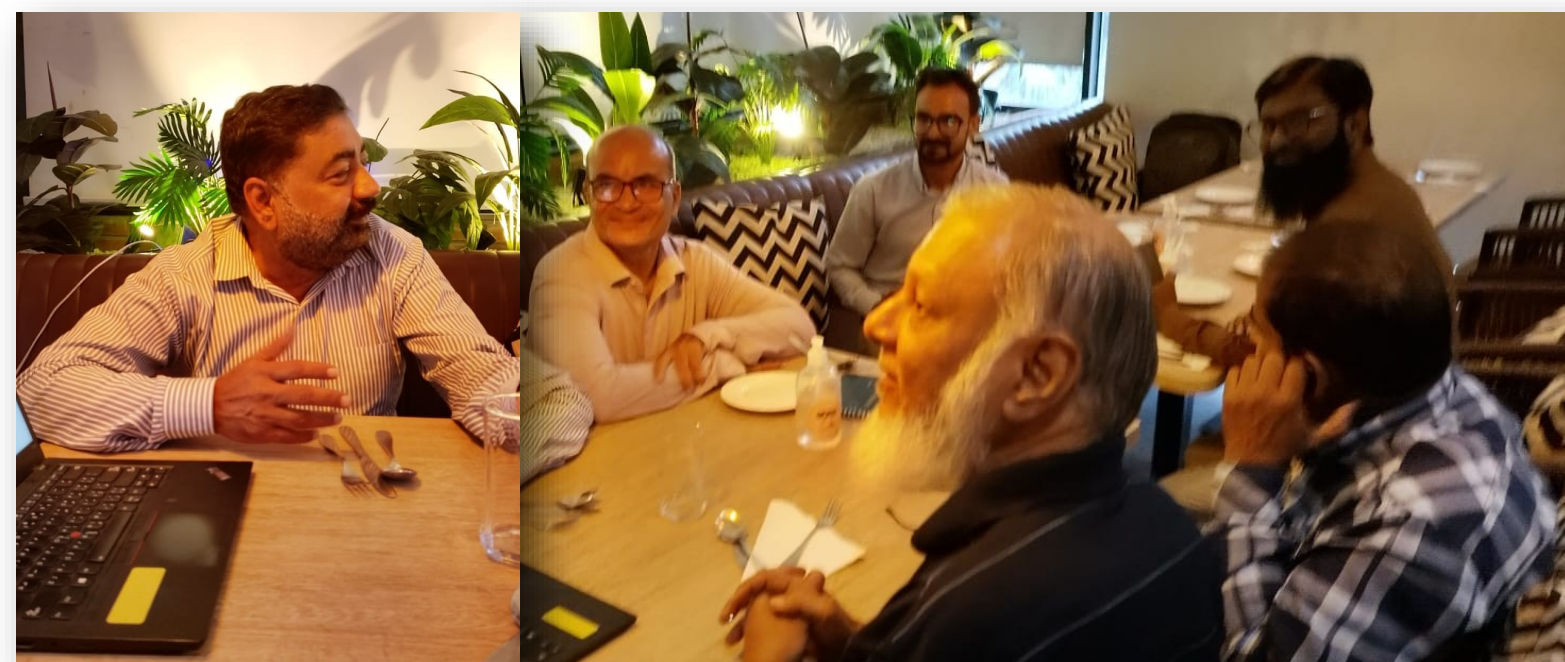
Therapy should be selected according to the patient's overall clinical profile, comorbidities and risk of complications.

→Primary Care Matters

Primary care physicians are ideally positioned to identify risk early, initiate appropriate therapy and prevent diabetes-related complications.

The Take-Home Message

Empagliflozin represents more than an HbA1c-lowering therapy—it is part of the evolving paradigm of comprehensive diabetes care, where protecting the heart, kidneys and long-term health of the patient is equally important.



Biofilm and the Management of Diabetic Foot Ulcers:

An Emerging Challenge in Wound Care

Dr. Shakeel Ahmed
Consultant Diabetologist,
Endocrinologist &
Diabetic Foot Specialist



Diabetic foot ulcer (DFU) is one of the most devastating complications of diabetes mellitus, affecting approximately 15–25% of people with diabetes during their lifetime. It is a leading cause of hospitalization, infection, and lower-limb amputation worldwide.

Among the many factors responsible for delayed wound healing, biofilm formation has emerged as one of the most significant yet under-recognized obstacles. Biofilms protect microorganisms from antibiotics and host immune responses, allowing chronic infection to persist despite apparently appropriate treatment.

Current evidence suggests that over 70–80% of chronic wounds contain biofilms. Successful management of diabetic foot ulcers therefore requires not only infection control but also targeted antibiofilm strategies integrated into comprehensive wound care. This article reviews the biology of biofilms, their clinical significance, methods of diagnosis, and evidence-based approaches for managing biofilm-associated diabetic foot ulcers.

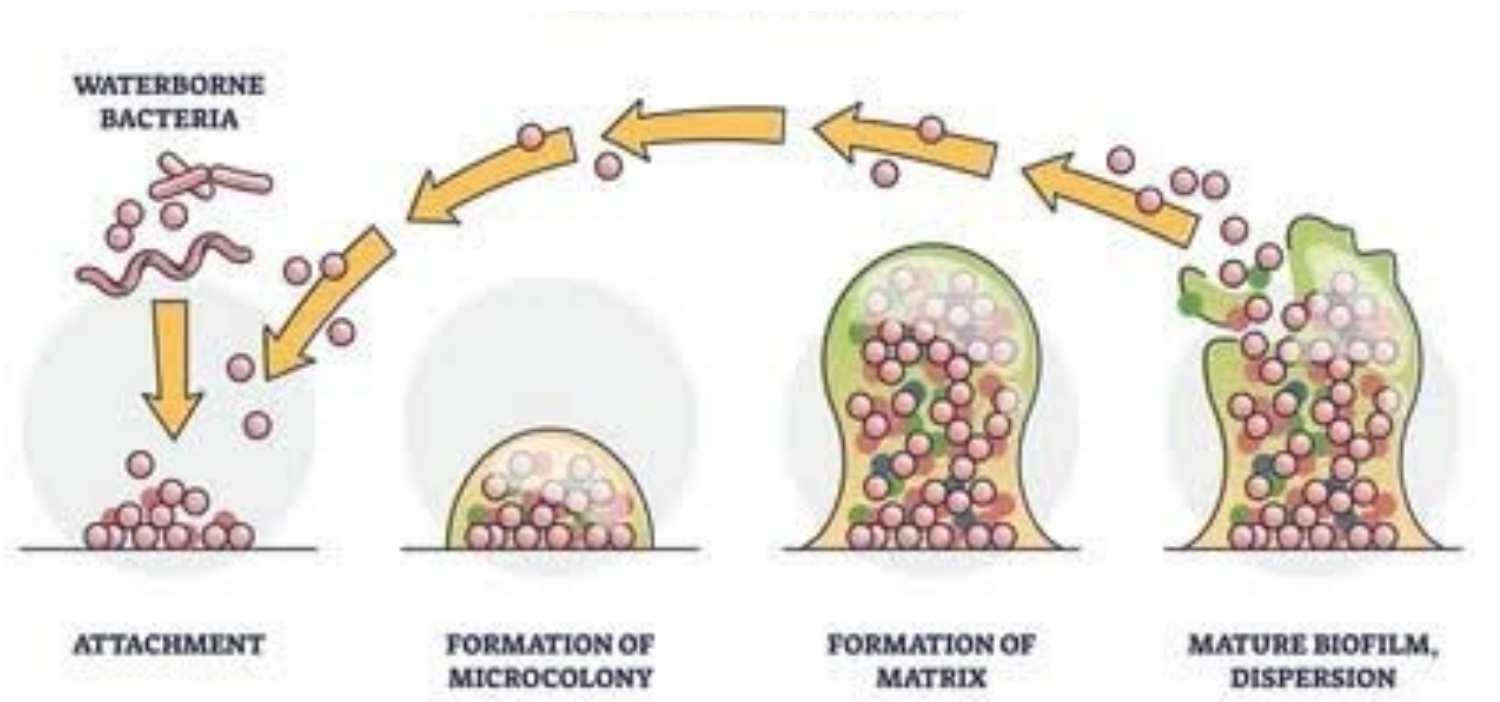
Diabetes mellitus has become a global epidemic. According to the International Diabetes Federation (IDF) Diabetes Atlas, 11th Edition, approximately 589 million adults were living with diabetes worldwide in 2025, with further increases expected in coming decades. Pakistan is among the countries with the highest burden of diabetes.

Diabetic foot ulcers develop due to a combination of:

- Peripheral neuropathy
- Peripheral arterial disease
- Foot deformity
- Repetitive trauma
- Infection

Although infection has long been recognized as a major contributor to poor healing, researchers now appreciate that biofilm formation is one of the principal reasons why chronic wounds fail to heal despite antibiotic therapy.

What is a Biofilm?



A biofilm is a structured community of microorganisms enclosed within a self-produced matrix known as the Extracellular Polymeric Substance (EPS) that adheres to living tissue or medical devices.

The EPS consists of:

- Polysaccharides
- Proteins
- Lipids
- Extracellular DNA
- Water

This protective matrix functions as a biological shield that makes bacteria remarkably resistant to:

- Antibiotics
- Antiseptics
- Host immune defenses
- Environmental stress

Consequently, bacteria within biofilms behave very differently from free-floating (planktonic) bacteria.

How Biofilms Form

Biofilm formation occurs in five stages:

1. Initial Attachment

Free-floating bacteria attach reversibly to the wound surface.

2. Irreversible Adhesion

Bacteria firmly adhere and begin producing extracellular polymers.

3. Biofilm Maturation

Microorganisms multiply into complex three-dimensional communities with water channels for nutrient exchange.

4. Mature Biofilm

A fully developed biofilm contains multiple bacterial species that communicate through quorum sensing, coordinating growth and resistance mechanisms.

The primary barrier to healing

Although other underlying host factors may also present obstacles to healing, it is increasingly acknowledged that a majority — if not nearly all — hard-to-heal wounds contain biofilm, a key barrier to healing.

Meta-analysis on prevalence of biofilm in chronic wounds was conducted by a panel of international expert clinicians and scientists.

9 published studies involving 185 chronic wounds were identified. Biofilm was reported in 78.2% of chronic wounds, confirmed by microscopic techniques. Strong evidence supports the prevalence of biofilm in hard-to-heal wounds:

5. Dispersion

Small bacterial clusters detach and colonize new wound areas, perpetuating chronic infection.

Common Biofilm-Producing Organisms in Diabetic Foot Ulcers

Frequently isolated organisms include:

- Staphylococcus aureus
- Methicillin-resistant S. aureus (MRSA)
- Pseudomonas aeruginosa
- Enterococcus species
- Escherichia coli
- Proteus species
- Klebsiella species
- Anaerobic bacteria
- Mixed polymicrobial communities

Most chronic diabetic foot ulcers contain polymicrobial biofilms rather than single organisms.

Why Biofilms Matter in Diabetic Foot Ulcers

Biofilms profoundly alter wound biology. They:

- Delay granulation tissue formation
- Maintain chronic inflammation
- Increase tissue destruction
- Reduce epithelialization
- Promote recurrent infection
- Increase antibiotic resistance
- Increase risk of osteomyelitis
- Increase hospitalization
- Increase amputation risk

Studies estimate that over 85% of Hard To Heal wound (chronic wounds) contain biofilms, compared with fewer than 10% of acute wounds.

Why Antibiotics Often Fail

One of the biggest misconceptions is that antibiotics alone can eradicate chronic wound infection. Within biofilms:

- Antibiotics penetrate poorly.
- Slow-growing bacteria are less susceptible.
- Persister cells survive treatment.
- Horizontal gene transfer promotes antimicrobial resistance.
- The EPS matrix prevents adequate drug concentrations.

Consequently, antibiotics may temporarily reduce bacterial load but rarely eliminate mature biofilms.

Clinical Clues Suggesting Biofilm

Biofilm cannot usually be seen with the naked

eye. However, clinicians should suspect biofilm when:

- A wound fails to improve after 2–4 weeks of appropriate care.
- Granulation tissue is unhealthy.
- Excessive slough rapidly returns after debridement.
- Exudate persists.
- Low-grade inflammation continues.
- Recurrent infection occurs.
- Multiple antibiotic courses fail.

Diagnosis of Biofilm

Routine wound swabs cannot reliably diagnose biofilms. Current methods include:

- Tissue biopsy
- Confocal laser scanning microscopy
- Electron microscopy
- Fluorescence in situ hybridization (FISH)
- Molecular diagnostic techniques

These methods are mainly used in research, so clinicians usually rely on clinical suspicion.

Principles of Biofilm Management

Effective management requires repeated disruption of the biofilm combined with comprehensive wound care. The main components include:

1. Wound Cleansing & peri wound area

Effective cleansing helps reduce contaminants and disrupt immature biofilms.

Recommended solutions include:

- Normal saline
- Hypochlorous acid (HOCl)
- Polyhexamethylene biguanide (PHMB)
- Dilute surfactant cleansers

High-pressure irrigation may further reduce bacterial load.

2. Sharp Debridement

Debridement is considered the cornerstone of antibiofilm therapy. It:

- Removes biofilm
- Eliminates necrotic tissue
- Reduces bacterial burden
- Restarts healing

Because biofilms can reform within 24–72 hours, regular debridement is often necessary.

3. Refasion

Refresh the wound margin with surgical blade or curate. Due to it Wound heals quickly



3. Topical Antimicrobial Dressings

Topical agents help suppress biofilm reformation after debridement.

Examples include:

- . Silver dressings
- . Effective against:
 - . Gram-positive bacteria
 - . Gram-negative bacteria
 - . MRSA

Cadexomer iodine

Benefits:

- Absorbs exudate
- Reduces bacterial burden
- Effective in chronic wounds

PHMB dressings

Provide broad antimicrobial activity with low cytotoxicity.

Honey dressings

Medical-grade honey:

- Reduces bacterial growth
- Promotes autolytic debridement
- Helps reduce inflammation

Hypochlorous Acid (HOCl)

HOCl has become an increasingly valuable antibiofilm agent.

Advantages include:

- Rapid antimicrobial action
- Biofilm disruption
- Low cytotoxicity

- Safe for repeated application
 - Effective against resistant organisms
- HOCl is particularly useful before and after debridement.

4. Systemic Antibiotics

Antibiotics should not be prescribed solely because biofilm is suspected. Better send C/S They are indicated only when clinical infection is present:

- Cellulitis
- Purulent discharge
- Deep tissue infection
- Osteomyelitis
- Systemic infection

Culture-guided antibiotic therapy remains essential.

5. Moist Wound Healing

Maintaining an optimal moist environment:

- Promotes cell migration
- Encourages angiogenesis
- Accelerates epithelialization

Dressings should be selected according to wound characteristics.

6. Offloading

Without pressure relief, healing is unlikely.

Methods include:

- Total Contact Cast
- Removable cast walker

- Therapeutic footwear
- Felt padding
- Custom orthotics

Offloading remains one of the strongest predictors of ulcer healing.

7. Glycemic Control

Persistent hyperglycemia impairs:

- Leukocyte function
- Collagen synthesis
- Angiogenesis

Optimizing blood glucose significantly improves healing outcomes.

8. Improving Blood Supply

Patients with ischemic ulcers require vascular assessment.

Revascularization should be considered when indicated.

9. Nutritional Support

Adequate nutrition supports wound repair.

Essential nutrients include:

- Protein
- Vitamin C
- Zinc
- Iron
- Vitamin D (when deficient)

Emerging Antibiofilm Therapies

Research continues to identify novel therapies. These include:

Antibiofilm peptides

Destroy bacterial membranes.

Quorum sensing inhibitors

Interrupt bacterial communication.

Bacteriophage therapy

Viruses specifically target pathogenic bacteria.

Nanotechnology

Nanoparticles enhance antimicrobial delivery.

Cold Atmospheric Plasma

Emerging evidence suggests effective biofilm disruption.

Antimicrobial hydrogels

Provide sustained release of antibiofilm agents.

Many remain under clinical investigation.

Comprehensive Management Using the TIME Framework

Modern diabetic foot care incorporates the

TIME principles:

T – Tissue management

- Regular debridement

I – Infection and inflammation control

- Antibiofilm therapy
- Appropriate antibiotics

M – Moisture balance

- Optimal dressing selection

E – Edge advancement

- Promote epithelial migration
- Address barriers to healing

Prevention of Biofilm Recurrence

Preventive measures include:

- Early debridement
- Routine wound assessment
- Appropriate dressing changes
- Pressure redistribution
- Blood glucose optimization
- Patient education
- Smoking cessation
- Early treatment of infection

Future Directions

The understanding of chronic wound biofilms has transformed diabetic foot care. Future management will likely combine:

- Molecular diagnostics
- Artificial intelligence-guided wound assessment
- Rapid pathogen identification
- Personalized antimicrobial therapy
- Novel antibiofilm technologies

The goal is faster healing, reduced amputations, and improved quality of life.

Biofilms represent one of the greatest barriers to healing in diabetic foot ulcers.

They enable bacteria to persist despite antibiotics and immune defenses, leading to chronic inflammation, recurrent infection, and delayed wound closure.

Conclusion

Successful management of diabetic foot ulcers requires a comprehensive, multidisciplinary, and evidence-based approach that addresses not only the visible wound but also the underlying factors responsible for delayed healing. Effective treatment begins with regular sharp debridement to remove necrotic tissue, slough, and devitalized material, thereby reducing the microbial burden and disrupting established biofilms that impede wound healing. Thorough wound cleansing with appropriate solutions should accompany each dressing change to eliminate debris and create an optimal environment for tissue repair.

The incorporation of topical antibiofilm agents has become increasingly important in modern wound care. These agents help disrupt the protective extracellular matrix of biofilms, allowing antimicrobial therapies and host immune defenses to act more effectively against pathogenic microorganisms. When clinical signs of infection are present, systemic antibiotic therapy should be prescribed based on the severity of infection, local antimicrobial susceptibility patterns, and, whenever possible, culture and sensitivity results. Antibiotics should be used judiciously to minimize the emergence of antimicrobial resistance.

Pressure offloading remains one of the cornerstones of diabetic foot ulcer management. The use of total contact casts, removable cast walkers, specialized footwear, or custom orthotic devices can significantly reduce mechanical stress on the wound, thereby promoting tissue repair and preventing recurrence. Equally important is the assessment and optimization of lower-limb perfusion. Patients with peripheral arterial disease should undergo timely vascular evaluation, and revascularization should be considered whenever clinically indicated to restore adequate blood flow and enhance wound healing.

Comprehensive diabetic foot care also requires the coordinated involvement of a multidisciplinary team comprising primary care physicians, diabetologists, podiatrists, vascular surgeons, infectious disease specialists, orthopedic surgeons, wound care nurses, dia-

betes educators, physiotherapists, orthotists, and dietitians. Such collaborative care ensures that all aspects of the patient's condition—including infection control, vascular status, metabolic management, pressure redistribution, patient education, and long-term preventive strategies—are addressed in an integrated manner.

Emerging evidence clearly demonstrates that biofilms are present in a substantial proportion of chronic diabetic foot ulcers and represent a major barrier to wound healing. Because biofilms are often resistant to both host immune responses and conventional antimicrobial therapy, their recognition and targeted management should become a routine component of diabetic foot care. Clinicians should maintain a high index of suspicion for biofilm in chronic, non-healing wounds and incorporate regular debridement together with appropriate antibiofilm therapies into standard treatment protocols.

By integrating evidence-based antibiofilm strategies with meticulous wound care, effective infection control, pressure offloading, vascular optimization, optimal glycemic management, and multidisciplinary collaboration, healthcare professionals can substantially improve healing rates, shorten the duration of treatment, reduce healthcare costs, minimize hospital admissions, decrease the incidence of recurrent infections, and ultimately lower the burden of lower-extremity amputations. Such a comprehensive approach not only preserves limb function but also enhances quality of life and long-term outcomes for people living with diabetes.

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Dr. Shakeel Ahmed delivering his presentation on "Biofilm and Management of Diabetic Foot ulcers", in Milan, Italy



Surgical Site Infection (SSI): Prevention and Wound Care in Patients with Diabetes

By: **Mahnoor Tariq**
Student Taskforce for Education and Public
Health (STEP-PCDA)

Introduction

Surgical site infection (SSI), also known as a postoperative surgical wound infection, is one of the most common healthcare-associated infections.

It occurs when microorganisms enter the surgical wound before, during, or after surgery, resulting in infection.

SSIs are associated with delayed wound healing, prolonged hospital stays, increased healthcare costs, and higher morbidity and mortality. Patients with diabetes are particularly vulnerable because hyperglycemia impairs immune function and delays the wound healing process.

Before Surgery (Preoperative)

Contamination may occur if the patient already has an existing infection. Other factors that increase the risk include poor skin preparation, contaminated traumatic wounds, or conditions such as a ruptured bowel, where bacteria may contaminate the surgical field.

During Surgery (Intraoperative)

Infection may occur because of breaks in sterile technique, inadequate hand hygiene, excessive operating room (OR) traffic, prolonged surgical procedures, or the use of improperly sterilized instruments.

After Surgery (Postoperative)

Postoperative contamination may result from poor wound care, improper hand hygiene during dressing changes, or inadequate patient education regarding wound care. In patients with diabetes, uncontrolled blood glucose levels delay wound healing and significantly increase the risk of surgical site infections.

Why Do Surgical Site Infections Matter?

Most surgical site infections involve only the skin and subcutaneous tissue surrounding the



surgical incision. However, some infections extend into deeper tissues, organs, or body cavities, leading to serious complications such as wound dehiscence, abscess formation, sepsis, septicemia, organ dysfunction, and even death if left untreated. SSIs can prolong hospitalization, increase healthcare costs, delay recovery, necessitate additional surgical procedures, and adversely affect patients' quality of life. Therefore, prevention and early recognition remain essential components of surgical care.

Risk Factors

Several patient-related factors increase the risk of developing surgical site infections.

- **Advanced age:** Older adults often have reduced immune function and delayed wound healing.
- **Smoking:** Smoking causes vasoconstriction, reducing tissue perfusion and oxygenation, thereby delaying wound healing and increasing the risk of infection.
- **Malnutrition:** Poor nutritional status weakens immune function and impairs tissue repair.
- **Immunosuppression:** Patients with conditions such as cancer, HIV/AIDS, or those receiving immunosuppressive therapy have a reduced ability to fight infection.
- **Diabetes mellitus:** Poor glycemic control impairs immune function and delays wound healing, significantly increasing the risk of SSI.
- **Obesity:** Excess adipose tissue reduces tissue perfusion, prolongs operative time, and increases wound complications.
- **Existing infections:** Infections elsewhere in the body may spread to the surgical site.

Signs and Symptoms of Surgical Site Infection

Early recognition is essential for prompt treatment and prevention of complications. Common signs and symptoms include:

- Redness around the incision
- Swelling and increased warmth
- Pain or tenderness at the surgical site
- Fever
- Purulent (pus-containing) wound discharge
- Delayed wound healing
- Wound dehiscence in severe infections

Prevention of Surgical Site Infection

Preoperative Measures

- Advise patients to shower with soap or an antimicrobial solution before surgery.
- Remove hair from the surgical site only when necessary, preferably using electric clippers rather than razors.
- Administer prophylactic antibiotics within the recommended time before skin incision.
- Optimize blood pressure and blood glucose levels, particularly in patients with diabetes.
- For elective surgery, optimize glycemic control, including HbA1c whenever feasible.
- Encourage patients to stop smoking at least 4–6 weeks before surgery.
- Provide a clean operating theatre (OT) gown.

Prepare the surgical site using an appropriate antiseptic solution, such as chlorhexidine-alcohol, according to institutional protocols.

Intraoperative Measures

- Perform appropriate surgical hand antisepsis.
- Maintain strict aseptic and sterile techniques throughout the procedure.
- Use properly sterilized instruments and equipment.
- Minimize unnecessary operating room traffic.
- Handle tissues gently and maintain meticulous hemostasis.
- Maintain normal body temperature and adequate oxygenation whenever possible.

Postoperative Measures

- Perform hand hygiene before and after wound care.
- Change wound dressings using sterile technique.
- Keep the surgical wound clean and dry.
- Monitor the wound regularly for signs of infection.
- Educate patients regarding proper postoperative wound care, medication adherence, diabetes management, and warning signs that require immediate medical attention.
- Maintain good glycemic control during the postoperative period, aiming for blood glucose levels according to institutional protocols (generally 80–180 mg/dL for most hospitalized patients).

Management of Surgical Site Infection

Management depends on the severity and extent of infection. When SSI is suspected:

- Obtain a wound culture if purulent drainage is present.
- Initiate appropriate antibiotic therapy based on clinical assessment and culture sensitivity results.
- Monitor the wound closely for progression or response to treatment.
- Perform wound debridement when necrotic tissue is present.
- Severe infections may require incision and drainage (I&D) to remove pus and infected tissue.
- Optimize blood glucose control throughout treatment, especially in patients with diabetes.
- In complicated cases, involve a multidisciplinary team comprising surgeons, infectious disease specialists, wound care nurses, and diabetes care professionals.

Conclusion

1 Surgical site infections (SSIs) are among the most common postoperative complications; however, many are preventable through evidence-based preventive strategies. Patients with uncontrolled diabetes are at particularly high risk because hyperglycemia impairs immune function and delays wound healing.

2 Adherence to infection prevention measures—including proper hand hygiene, strict aseptic technique, timely administration of prophylactic antibiotics, meticulous wound care, optimization of nutritional status, smoking cessation, and effective glycemic control—can substantially reduce the incidence of SSIs. Early recognition and prompt management not only promote faster recovery but also improve patient safety, reduce healthcare costs, and enhance overall surgical outcomes.

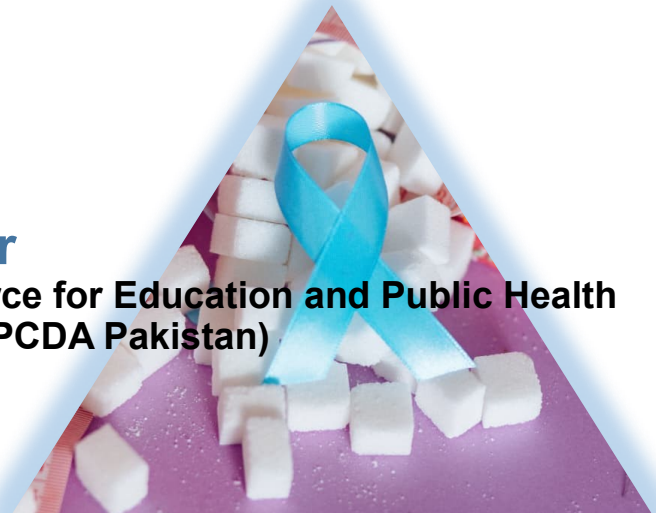
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Prediabetes: The Window of Opportunity to Prevent Type 2 Diabetes



Aliza Mahar

Student Taskforce for Education and Public Health
(STEP-Wing of PCDA Pakistan)



Diabetes is a big problem for people's health nowadays. It is affecting a lot of individuals, healthcare systems and countries. **The International Diabetes Federation** says that around **589 million** adults have diabetes worldwide and this number will go up to **853 million by 2050** if we do not do something about it. What is more worrying is that many more people have **Prediabetes** which means their blood sugar levels are higher than normal, but not high enough to be called diabetes. Most people with prediabetes do not know they have it because they do not feel any symptoms. The disease just gets worse without them noticing.

Pakistan is one of the countries that is suffering the most from diabetes. **The International Diabetes Federation** says that **34.5 million** adults in Pakistan had diabetes in 2024, which makes Pakistan the country with the **fourth** highest number of people with diabetes. If we do not do something to stop it this number will go up to **70.2 million by 2050**, which's why we need to find people with diabetes early and help them.

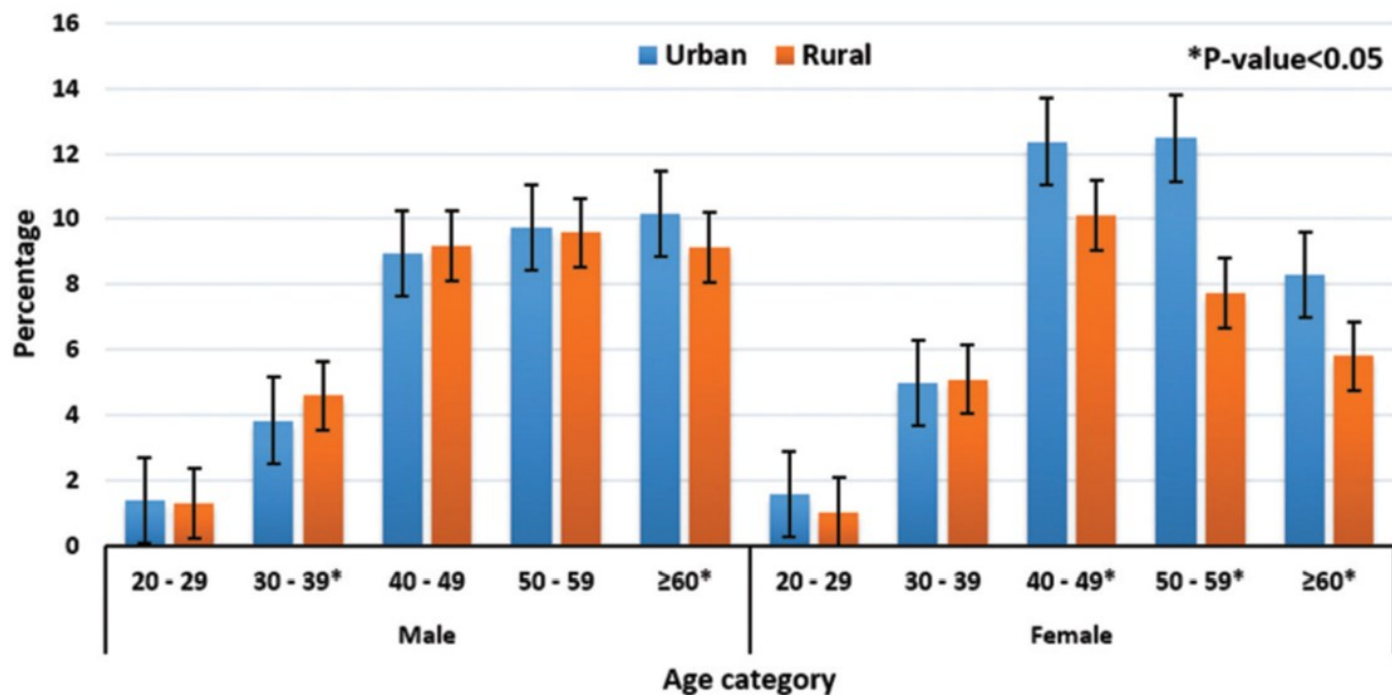
The good news is that we can prevent type 2 diabetes. Many organizations, like the American Diabetes Association and the World Health Organization have found that if we find people who're at risk of getting diabetes early and if they eat healthy food, exercise regularly and manage their weight they can avoid getting diabetes or, at least delay it. For doctors this is an opportunity to help reduce the number of people who get diabetes and its serious complications. Diabetes is a problem but if we work together we can prevent type 2 diabetes

and help people with diabetes live healthier lives.

Diabetes is a problem that goes way beyond high blood sugar levels. It is a cause of **heart disease, kidney disease, blindness, stroke, nerve damage and amputations** which greatly reduces the quality of life for people with diabetes. It also increases healthcare costs and the risk of dying soon. The World Health Organization says that **diabetes and kidney disease caused by diabetes** resulted in more than **2 million deaths in 2021**.

High blood sugar also contributed to **11 percent of Cardiovascular deaths around the world**. Diabetes is not just bad for people, it also has an impact on the economy because of the cost of treating it for a lifetime, hospital stays, lost productivity and managing long-term complications.

The situation in **Pakistan** is really bad. A survey called the **Second National Diabetes Survey of Pakistan** which was done from **2016 to 2017** found that **26.3 percent** of adults in Pakistan have diabetes and an additional **14.4 percent** have prediabetes.



Age-stratified prevalence of diabetes among men and women with urban and rural distribution.

This means that almost two out of every five adults in Pakistan have blood sugar problems. What is more alarming is that **7.1 percent of the people with diabetes did not know they had it** until the survey. Since diabetes can progress without any symptoms people can develop complications like heart disease, kidney damage, eye problems and nerve damage long before they even know they have diabetes. These findings show that it is very important to screen for diabetes, treat it on time and prevent it in a cost-effective way especially in primary care settings. Diabetes is an issue that needs attention and diabetes care is essential to prevent complications and improve the quality of life for people with diabetes.

Type 2 diabetes happens slowly over time after years of insulin resistance and impaired glucose regulation and having trouble controlling blood sugar levels. People with prediabetes are at risk because many of them will get type 2 diabetes if they do not make healthy changes to their lifestyle or get the right medical help.

There are things that can increase the chance of getting type 2 diabetes. These in-

clude being overweight especially if the **extra weight is around the belly, not getting exercise, genetics, high blood pressure, having high levels of bad cholesterol and non-alcoholic fatty liver disease (NAFLD)**. All of these things are connected to the body not using insulin correctly. Smoking and having trouble sleeping including sleep apnea and not getting sleep can also increase the risk of getting type 2 diabetes.

Some people need to be watched closely. Women who had diabetes when they were pregnant or who have **polyendocrine metabolic ovarian syndrome (PMOS)** are more likely to get type 2 diabetes later in life. Also people who are 35 years old or older from South Asia should get checked for type 2 diabetes earlier because the disease can start at a younger age and with less extra weight in these people. If we can find the people who're at high risk of getting type 2 diabetes we can help them get the right checks and prevent the disease before it causes permanent problems. Type 2 diabetes is a disease but if we can find it early we can do something about it. Type 2 diabetes can be. That is why it is so important to know who is at risk of getting type 2 diabetes.

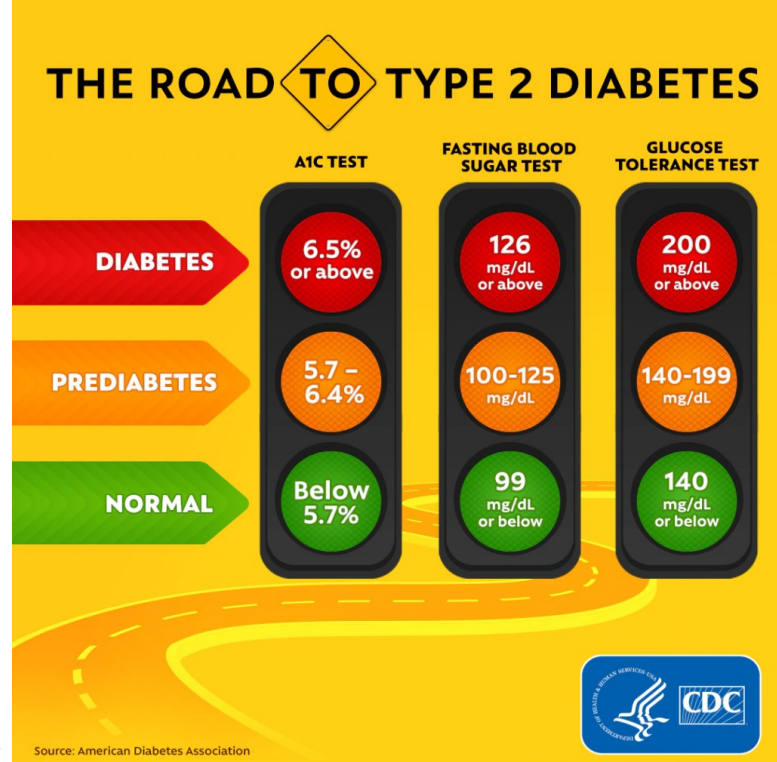
Early detection is the important part of preventing diabetes because people with prediabetes often have no symptoms while their body changes in bad ways. **The American Diabetes Association (ADA)** says everyone over **35 years** old should get tested even if they feel fine. People who are overweight or obese and have risk factors should get tested even before 35. These risk factors include having a family member with diabetes high blood pressure, bad cholesterol, a history of diabetes during pregnancy PMOS not being active or being from a risk ethnic group like South Asians. **The U.S. Preventive Services Task Force (USPSTF)** also says adults between 35 and 70 years old who are overweight or obese should get tested.

Testing can be done with **fasting blood sugar (FBS) HbA1c or an oral glucose tolerance test (OGTT)**. According to ADA diagnostic criteria, diabetes is diagnosed by an **FBS ≥ 126 mg/dL (7.0 mmol/L)**, **HbA1c $\geq 6.5\%$** , or a **2-hour OGTT value ≥ 200 mg/dL (11.1 mmol/L)**. Prediabetes is identified by an **FBS of 100–125 mg/dL**, **HbA1c 5.7–6.4%**, or a **2-hour OGTT value of 140–199 mg/dL**.

People who have test results should get tested again at least every three years. Those with prediabetes need to get tested every year. Primary care doctors are very important because they find people at risk, start testing on time, explain the results and help with lifestyle changes. Prediabetes can be. Finding it early gives a big chance to stop it from turning into type 2 diabetes and its bad effects.

Type 2 diabetes prevention is about making some changes to your daily life. These changes are the way to prevent type 2 diabetes and they work really well for people who are at high risk of getting it. If you can lose a bit of weight it makes a big difference. Losing 5 to 10 percent of your body weight is a goal to aim for. This can really help your body work better and reduce your chance of getting type 2 diabetes.

When it comes to eating, do not try to follow a super strict diet. Instead focus on eating over the long term. Eat whole grains, vegetables, fruits and lean protein. Try to cut back on drinks, processed foods and too much fat.



This kind of diet helps control your blood sugar and keeps your weight in check. Foods that are high in fiber are especially good because they help slow down how fast your body absorbs sugar.

Being active is also very important. It helps your body use insulin better even if you do not lose weight. Try to get at least 150 minutes of moderate exercise per week. You should also try to do some strength training a few times a week.. Remember to get up and move around throughout the day. Getting sleep, managing stress and quitting smoking are all important too. These things can all help reduce your risk of getting type 2 diabetes.

There was a study called the **Diabetes Prevention Program** that showed just how well lifestyle changes can work. It found that people who made some changes to their daily life were 58 percent less likely to get type 2 diabetes. For people over 60 the risk was reduced by 71 percent. This just goes to show that making lifestyle changes is often better than taking medication.

Sometimes medication like metformin might be recommended for people who're at very high risk of getting type 2 diabetes.. This should only be used in addition to making lifestyle changes, not instead of them.

PPrimary Care Physicians (PCPs) plays a role in all of this. They can help you figure out the risk of getting type 2 diabetes and give advice on how to reduce it. They can also help get started with making lifestyle changes and check in with regularly to see how you are doing. By working we can really reduce the number of people who get type 2 diabetes and all the problems that come with it.

Type 2 diabetes prevention is about making some simple changes to your daily life like type 2 diabetes prevention. These changes, like type 2 diabetes prevention, are the way to prevent type 2 diabetes and they work really well for people who are at high risk of getting type 2 diabetes. Remember, making lifestyle changes is often better than taking medication for type 2 diabetes prevention.

PPrimary care gives the chance to change this situation. By finding people who're at high risk, encouraging them to live healthy lives and making sure they get regular check-ups, doctors who work in primary care can stop or slow down the start of type 2 diabetes. Initiatives that take place in the community like telling people more about the issue, having health programs at work and, in schools getting more people to be active and making it easier to get food are just as important.

A team effort that includes doctors, people who make health policies, teachers and local groups is needed to lower the rising number of diabetes cases and make sure people stay healthier for longer in Pakistan.

National diabetes survey of Pakistan 2016-2017



Reduce your risk by living a healthy life style



Reduce weight and BP
By using less salt, sugar and fats



Exercise more
30 minutes - 5 times/week



Eat fresh
Vegetables, fruits and whole grains



Stay hydrated
Ensure adequate hydration



Manage stress
Engage in meditation/prayers



Support healthy living
Work together for health, motivate others



Stop smoking



Sleep well



Risk assessment of Pakistani individuals for diabetes (RAPID)



Read the question, circle your answer and total your score.

Q # 1 If your age is:

- a) Less than 40 years
- b) Between 40 to 50 years
- c) More than 50 years

Score

0
1
3

Q # 2 Waist circumference:
(For male)

- a) Less than 90 cm (35.5 inches)
- b) 90 cm (35.5 inches) or more

Score

0
2

Waist circumference:
(For female)

- a) Less than 80 cm (31.5 inches)
- b) 80 cm (31.5 inches) or more

Score

0
2

Q # 3 Family history of diabetes:

- a) No
- b) Yes (any parent & / or sibling)

Score

0
1

If the total score is 4 or more, you are at the risk of developing diabetes.
Kindly contact your doctor.



FDA approves new cholesterol lowering drug Lipfendra

By: Dr. Faryal Tariq
Consultant Diabetologist and Endocrinologist



July 16, 2026. Food and Drug Administration (FDA) has announced the approval of a new drug called **Lipfendra** (enlicitide) for the treatment of hypercholesterolemia and heterozygous familial hypercholesterolemia, an inherited form of high blood cholesterol. Familial hypercholesterolemia is life threatening Trusted Source, and if left untreated, it causes heart attacks and heart disease.

Lipfendra is the first PCSK9 Trusted Source (proprotein convertase subtilisin/kexin type 9) inhibitor formulated in oral pill form to be taken in 20 mg/day.

How does Lipfendra work?

Lipfendra works by inhibiting PCSK9, an enzyme produced by the liver, which plays a crucial role in regulating cholesterol levels, and ultimately helps to lower levels of low-density lipoprotein (LDL) cholesterol. It works by identifying floating PCSK9 proteins in the liver. When it 'finds' them, it binds to them, acting like a cap that covers its docking site. Because the PCSK9 protein is physically blocked by the drug, it's no longer able to attach to the liver's LDL receptors, preventing the liver from prematurely destroying them.

Why did the FDA approve Lipfendra?

The FDA endorsed safety and efficacy of Lipfendr, from two randomized, double-blind, placebo-controlled clinical trials, **CORALreef Lipids** and **CORALreef HeFH**. In the trials the oral PCSK9 inhibitor has been shown to lower LDL cholesterol by approximately 56% to 59%.

How is Lipfendra different from other anti-cholesterol treatments?

Being oral, Lipfendra is a step away from some of the current therapies for familial hypercholesterolemia, some of which are invasive and can be difficult to tolerate. So far, the typical treatment for familial hypercholesterolemia has included a combination of: statins ezetimibe Bempedoic acid and intravenous PCSK9 inhibitors.



Freedom from Metabesity: Community Awareness & Screening Camp

Report by:

**Muhammad Saud Abbasi
(STEP)**

As part of its ongoing commitment to preventing diabetes and promoting healthier lifestyles, the Diabetes Care Centre & Foot Clinic, in collaboration with STEP (Student Taskforce for Education & Public Health) and PCDA, organized the "Azadi Ke Mahine Mein Mota-pay Se Azadi" (Freedom from Obesity in the Month of Independence) awareness and screening camp. The initiative focused on addressing Metabesity—the close relationship between obesity and metabolic diseases such as type 2 diabetes.

The camp attracted more than 40 community members, who received free blood glucose screening, Body Mass Index (BMI) assessment, obesity risk evaluation, and personalized medical consultation. The objective was not only to identify individuals at risk of diabetes and obesity but also to educate participants about the importance of early lifestyle modifications.

One of the most significant observations during the activity was the widespread confusion regarding healthy dietary patterns. Many participants believed that simply reducing food intake or skipping meals was an effective weight-loss strategy, while others relied heavily on social media trends and unverified diet plans. These misconceptions highlighted the urgent need for evidence-based nutrition education tailored to the local community. Another recurring concern was the increasing prevalence of sedentary lifestyles. A large proportion of participants reported spending most of their day sitting due to office work, academic commitments, or prolonged screen time, with little to no structured physical activity. Healthcare professionals explained how physical inactivity contributes to weight gain, insulin resistance,



and the development of metabolic syndrome, emphasizing that even moderate daily exercise can significantly reduce the risk of diabetes and cardiovascular disease.



During individual consultations, participants received practical guidance on adopting balanced eating habits, increasing physical activity, managing body weight, and incorporating sustainable lifestyle changes into their daily routines. Rather than promoting restrictive diets, the counselling sessions focused on achievable long-term habits such as portion control, consuming more vegetables and whole grains, limiting sugary beverages, and engaging in regular exercise.

The event served as an important reminder that Metabesity is largely preventable through early screening, timely intervention, and continuous public awareness. Identifying individuals at risk before the onset of complications provides an opportunity to reverse unhealthy trends and reduce the burden of diabetes in the community.

The Diabetes Care Centre & Foot Clinic remains committed to organizing community-based preventive health initiatives that empower individuals with the knowledge and resources needed to make informed health decisions. Through collaborative efforts with STEP and PCDA, such programs continue to strengthen public awareness and encourage healthier lifestyles, bringing us one step closer to a healthier and diabetes-aware society.



Global Experts Redefine the Cardio-Renal-Metabolic Continuum: Key Insights from the CMF2026 Plenary Panel

Reports: **Muhammad Saleem Khan**
Head of AJK/GB Region of PCDA Pakistan

Plenary Panel Summary: Re-evaluating the Cardio-Renal-Metabolic Continuum
Forum: Cardio Metabolic International Forum (CMF 2026)
Location & Date: Seoul, Republic of Korea January 22–26, 2026
Session: Plenary Session – Integrated Frontiers in Cardio-Renal-Metabolic Medicine
Role: Expert Panelist Commentary
Session Overview



The plenary session at the Cardio Metabolic International Forum (Seoul, Korea, 2026) addressed one of the most pressing mandates in modern internal medicine: dismantling clinical silos to manage cardiorenal-metabolic (CRM) diseases as a unified pathophysiological spectrum.

The session featured landmark presentations by Dr. Scott D. Isaacs (USA), who addressed "Connecting the Dots: Redefining Obesity and Cardiovascular Risk," and Dr. Hussein M. A. Bagha (Kenya), who presented "Redefining Kidney Protection and Protecting the Nephrons."

Below is the structured synthesis of the panel discussion and expert consensus formulated during the plenary proceedings for publication.

Expert Panel Synthesis & Proceedings

1. Redefining Obesity as a Primary Driver of Cardiovascular Risk

Insights following the presentation by Dr. Scott D. Isaacs (USA)

The panel strongly endorsed the paradigm shift highlighted by Dr. Isaacs regarding obesity not merely as a risk factor, but as a primary, chronic inflammatory driver of cardiovascular and metabolic disease.

Beyond BMI to Functional Adiposity: BMI alone is inadequate for capturing true cardiovascular risk. Clinical focus must pivot toward visceral adiposity, ectopic fat deposition, and adipose tissue dysfunction (adiposopathy), which promote systemic endothelial inflammation, insulin resistance, and accelerated atherosclerosis.

Disease Modification via Targeted Therapeutics: Modern pharmacological management of obesity (e.g., incretin-based dual and triple agonists) represents a

paradigm shift from simple weight loss to true cardiovascular risk reduction. The panel emphasized that treating obesity early halts the downstream cascade of heart failure with preserved ejection fraction (HFpEF), hypertension, and atherogenic dyslipidemia.



2. Nephron Preservation and Proactive Cardiorenal Protection

Insights following the presentation by Dr. Hussein M. A. Bagha (Kenya)

Building on Dr. Bagha's presentation, the panel discussed the critical need for proactive, nephron-centric management long before traditional markers like serum creatinine signal functional decay.

The Imperative of Early Nephron Protection: The loss of functional nephrons is largely irreversible. Panel discussion highlighted that hemodynamic overload, intraglomerular hypertension, and metabolic insults drive chronic kidney disease (CKD) progression long before overt renal failure occurs.

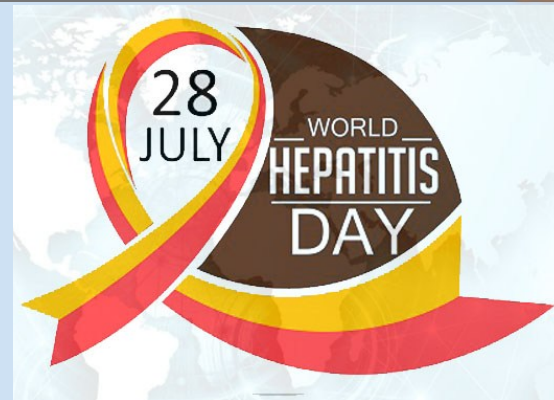
Therapeutic Synergy in Cardiorenal Care: The panel underscored the combined deployment of SGLT2 inhibitors, non-steroidal mineralocorticoid receptor antagonists (ns-MRAs), and GLP-1 receptor agonists. These classes provide direct nephron protection by reducing hyperfiltration, diminishing albuminuria, and mitigating renal fibrosis, regardless of baseline glycemic control.

By redefining obesity management as early cardiovascular intervention and prioritizing nephron-protective therapies at initial presentation, clinicians can effectively intercept the cardio-renal-metabolic cascade. Early, multi-pathway intervention is the definitive strategy to preserve end-organ function, reduce cardiovascular mortality, and alter the trajectory of chronic disease globally.

Glimpses of the Cardio-metabolic Forum



Advancing Hepatitis Elimination: Prioritizing Prevention Over End-Stage Liver Disease



Message by:

Dr. Mohammad Saleem Khan

MBBS (Gold Medalist), FCPS, FACP, FRCP (London, Edinburgh, Glasgow, Ireland) Consultant Physician & Medical Specialist.

Vice President: Pakistan Society of Internal Medicine (PSIM) AJK & Gilgit-Baltistan Region

Regional Head: Primary Care Diabetes Association of Pakistan (PCDA) AJK & Gilgit-Baltistan

International Advisor: Royal College of Physicians and Surgeons of Glasgow

Senior Examiner: MRCP UK PACES Examination for the Federation of Royal Colleges of Physicians of the United Kingdom

Location: Kotli, Azad Jammu & Kashmir

***Dear Esteemed Colleagues,
On the occasion of World Hepatitis Day (July 28), we reaffirm our collective commitment to eliminating viral hepatitis as a major public health threat.***

Background & Historical Significance

World Hepatitis Day was established in response to the growing global burden of viral hepatitis, gaining official WHO recognition as one of its core public health campaigns. July 28 was chosen to honor the birthday of Dr. Baruch Blumberg, who discovered the Hepatitis B virus (HBV) in 1965 and subsequently developed the first HBV diagnostic test and vaccine, earning the Nobel Prize in Physiology or Medicine in 1976.

Epidemiological Spectrum & Severe Complications

Hepatitis A & E: Enterically transmitted, typically causing acute, self-limiting viral hepatitis, though HEV carries significant mortality risks in pregnant women.

Hepatitis B, C, & D: Parenterally transmitted viruses capable of causing chronic active infection. Uncontrolled chronic infection inevitably leads to a spectrum of severe hepatic complications:

Hepatic Cirrhosis: Progressive parenchymal fibrosis and architectural distortion.

Hepatocellular Carcinoma (HCC): Primary liver malignancy secondary to chronic necroinflammation and oncogenic risk factors.

Acute-on-Chronic Liver Failure (ACLF): Decompensation leading to multiorgan failure.
End-Stage Liver Disease (ESLD) & Liver Transplantation: Leaving organ transplantation as the sole definitive intervention—a resource-intensive option unavailable to the majority of patients in low- and middle-income regions.

"Managing end-stage complications is challenging and costly; prevention, early detection, and timely viral suppression remain our most powerful clinical weapons."

Preventive Strategies in Clinical Practice

Universal Immunization: Timely birth-dose vaccination for HBV within 24 hours, followed by complete primary series coverage.

Infection Control & Safety: Strict adherence to universal precautions, safe injection practices, rigorous blood product screening, and effective sterilization protocols across healthcare facilities.

Harm Reduction & Public Health Programs: Comprehensive community-level screening, harm reduction strategies, and post-exposure prophylaxis (PEP) protocols.



Hepatitis: A silent challenge in Pakistan

WORLD HEPATITIS DAY

- Over 13 million** are affected by **Hepatitis B or C** combined in **Pakistan**, many remain unaware
- 10 million people** are living with **Hepatitis C** in **Pakistan** (one of the highest burdens worldwide)
- 3.8 million** with **Hepatitis B**

Chronic hepatitis is the leading cause of liver damage and liver cancer

World Hepatitis Day | July 28 | Let's Break It Down

Modern Therapeutic Advances & Management

Hepatitis C Virus (HCV): The therapeutic landscape has been revolutionized by Direct-Acting Antivirals (DAAs) such as Sofosbuvir/Velpatasvir and Glecaprevir/Pibrentasvir. Achieving a Sustained Virologic Response (SVR12/24) exceeding 95% is now achievable with all-oral, pangenotypic regimens over 8–12 weeks, preventing progression to cirrhosis and HCC.

Hepatitis B Virus (HBV): High-barrier nucleos(t)ide analogues (NAs) like Tenofovir Alafenamide (TAF), Tenofovir Disoproxil Fumarate (TDF), and Entecavir offer potent long-term viral suppression, halting fibrosis progression and significantly mitigating HCC risk.

As clinical leaders, our focus must remain on expanding opportunistic screening, ensuring early linkage to care, mitigating diagnostic drop-offs, and emphasizing primary prevention over complex end-stage disease management.

Warm regards,

Incretin-Based Therapies 2026

A Comprehensive Overview

Incretin-based therapies have transformed the management of type 2 diabetes mellitus (T2DM) and obesity. By targeting gut-derived hormones that regulate insulin secretion, appetite, and metabolism, these therapies offer significant benefits in glycemic control and weight reduction. This article explores the latest classifications, mechanisms, and clinical applications of incretin-based therapies as of 2026.

1. Understanding Incretins

Incretins are hormones released from the gut in response to food intake. The two primary incretins are:
 GLP-1 (Glucagon-Like Peptide-1)
 GIP (Glucose-Dependent Insulinotropic Polypeptide)
 They signal the pancreas to release insulin (lowering blood sugar) and reduce the release of glucagon. Crucially, they also slow down stomach emptying and send strong signals to the brain to decrease appetite and increase feelings of fullness. Modern therapies are based on "agonists" of these hormones, meaning they activate the same receptors, but in a far more potent and long-lasting way.



**Dr. Javeria
Salman**

**Head of
Hyderabad
Chapter of PCDA**

2. Classification of Incretin-Based Therapies

A. The Pioneers:

GLP-1 Receptor Agonists (Single Incretin). The journey began with Glucagon-like peptide-1 (GLP-1) receptor agonists. These target a single incretin hormone receptor.

Exenatide (Byetta & Bydureon BCise): The first to break ground, Byetta is injected twice daily, while the long-acting Bydureon BCise is injected once weekly.

Lixisenatide (Adlyxin/Lyxumia): An injectable taken once daily.

Liraglutide (Victoza): Also a daily injection, Victoza has long-term cardiovascular safety data.

Dulaglutide (Trulicity): A hugely popular weekly injection known for its ease of use.

Semaglutide (Ozempic & Wegovy): Perhaps the most famous name in recent years. This weekly injection is approved under the name Ozempic for type 2 diabetes and Wegovy for obesity (due to the higher doses used for weight loss). It offers excellent efficacy in blood sugar reduction and significant weight loss.

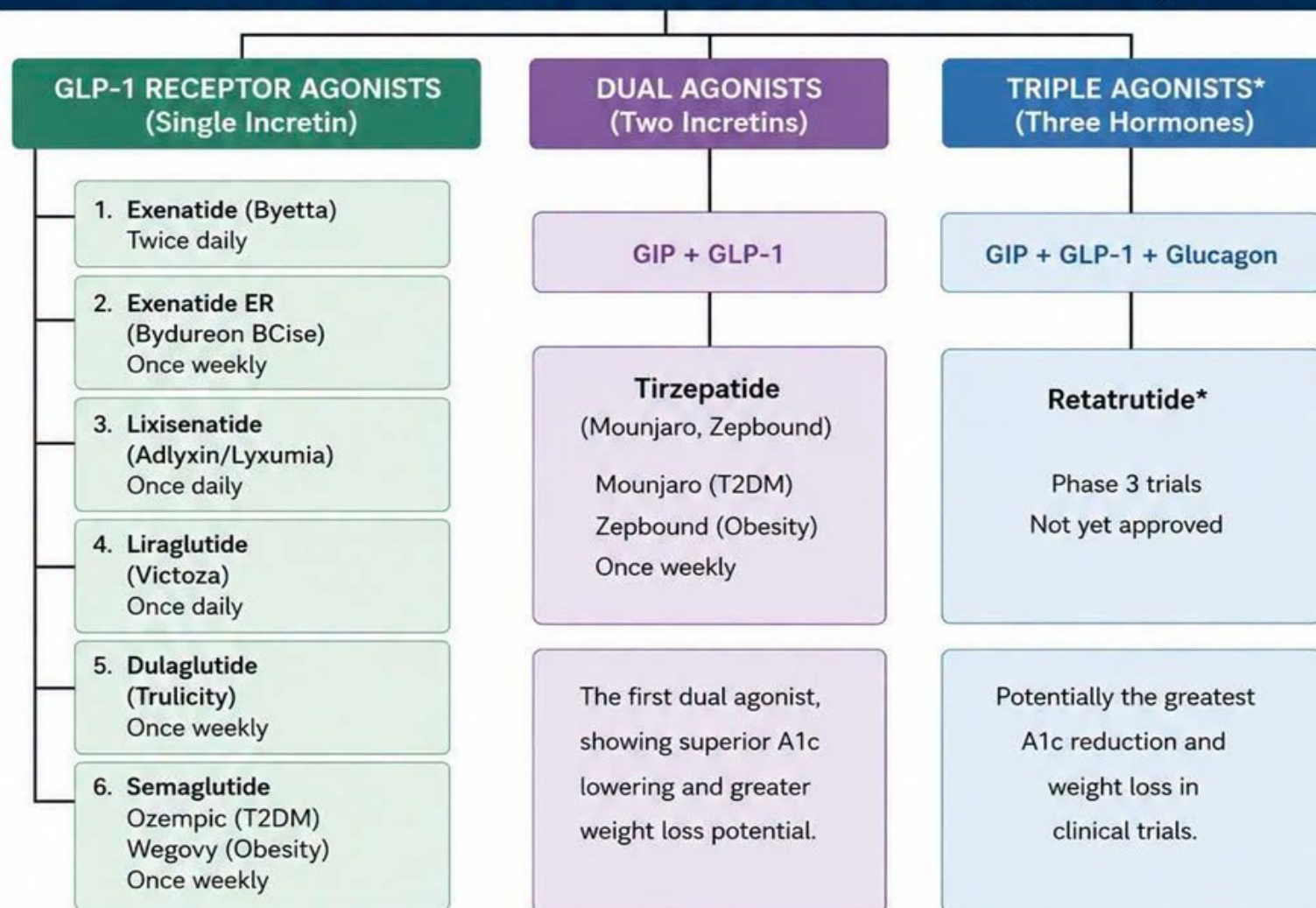
Evolution Summary for GLP-1 RAs: These drugs are well-established and have demonstrated excellent results in lowering hemoglobin A1c (a marker of average blood sugar) and facilitating weight loss. All except Oral Semaglutide and Orforglipron are injectables.

B. Dual Agonists (GIP + GLP-1)

Tirzepatide is considered a breakthrough in metabolic therapy.

The Powerful Successor: Dual Agonists (GIP + GLP-1)

INCRETIN-BASED THERAPIES (2026)



ORAL INCRETIN THERAPIES (NOT INJECTABLE)

Oral Semaglutide (Rybelsus)

Once daily

Fasting required

First approved oral GLP-1 receptor agonist for type 2 diabetes.

Orforglipron

(Non-peptide GLP-1 RA)

Once daily

No fasting restrictions

Small molecule, non-peptide oral GLP-1 RA with no fasting or water restrictions. Approved for obesity in some regions; diabetes approvals expanding.

EVOLUTION OF INCRETIN THERAPY

GLP-1 RECEPTOR AGONISTS (Single Incretin)

Excellent A1c reduction and weight loss

DUAL AGONISTS (GIP + GLP-1)

Greater A1c reduction and weight loss

TRIPLE AGONISTS* (GIP + GLP-1 + Glucagon)

Potentially greatest A1c reduction and weight loss

CLASS	TARGET RECEPTORS	REPRESENTATIVE DRUGS	DOSING	STATUS
GLP-1 Receptor Agonists	GLP-1	Exenatide, Lixisenatide, Liraglutide, Dulaglutide, Semaglutide	Daily or Weekly	Approved
Dual Agonists	GIP + GLP-1	Tirzepatide	Weekly	Approved
Triple Agonists*	GIP + GLP-1 + Glucagon	Retatrutide*	Weekly	Investigational (Phase 3)
Oral GLP-1 RAs	GLP-1	Oral Semaglutide, Orforglipron	Daily	Approved / Expanding

Scientific advances have unlocked even greater efficacy by targeting a second incretin receptor simultaneously: Gastric inhibitory polypeptide (GIP). Dual agonists leverage the benefits of both.

Tirzepatide (Mounjaro & Zepbound): Representing a major leap forward, Tirzepatide is a weekly injectable that acts as a dual GIP and GLP-1 receptor agonist. It is branded as Mounjaro for treating type 2 diabetes and Zepbound for chronic weight management (obesity). It has consistently demonstrated superiority over traditional GLP-1 RAs in both A1c reduction and weight loss potentia.

Evolution Summary for Dual Agonists: The combination approach of GIP + GLP-1 provides a synergistic effect, resulting in greater outcomes than targeting GLP-1 alone.

C. The Cutting Edge: Triple Agonists (GIP + GLP-1 + Glucagon)

The frontier of research now involves activating a third receptor: the glucagon receptor. This may seem counterintuitive since glucagon increases blood sugar, but a balanced activation alongside GIP and GLP-1 has been shown to boost energy expenditure, further enhancing weight loss.

Retatrutide: This drug is currently in advanced Phase 3 clinical trials and has not yet been approved. It is an investigational drug, designed as a once-weekly injectable. Early clinical trial data indicates Retatrutide has the potential to deliver potentially the greatest A1c reduction and weight loss seen in any therapeutic class to date. It is a highly-watched compound in the pipeline.

Evolution Summary for Triple Agonists: This triple mechanism aims to achieve unparalleled levels of blood sugar control and body weight reduction, pushing the limits of medical management for metabolic conditions.

4. A New Frontier: Oral Incretin Therapies (Not Injectable)

For years, the major downside of incretin therapies was the need for frequent injections. A significant breakthrough has come with the development of oral formulations, making these powerful treatments more accessible and acceptable for many patients.

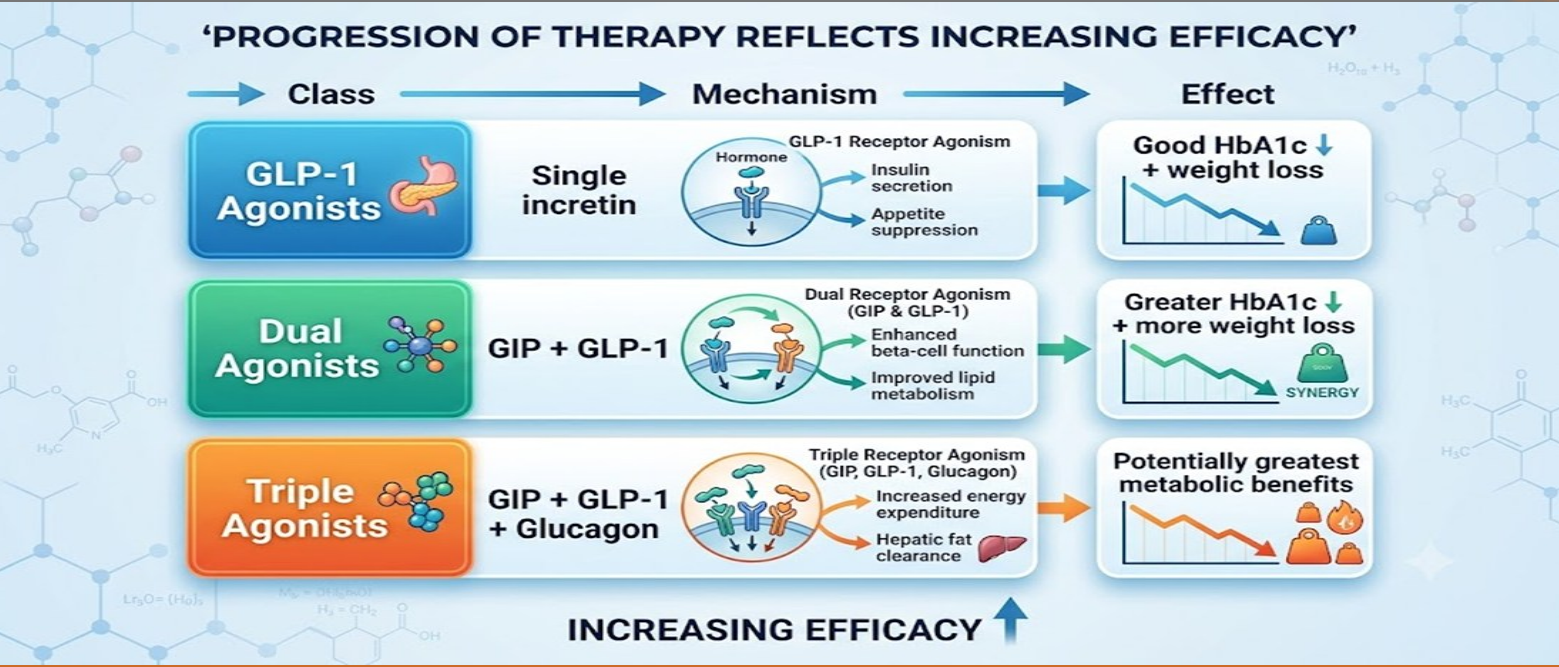
Oral Semaglutide (Rybelsus): This was the very first approved oral GLP-1 receptor agonist, specifically for type 2 diabetes. It is a daily pill but comes with a crucial dosing requirement: it must be taken on an empty stomach with a small amount of water, and patients must wait at least 30 minutes before eating or drinking.

Orforglipron: Representing another innovation, Orforglipron is a small-molecule, non-peptide GLP-1 receptor agonist. Unlike Oral Semaglutide, it has no fasting or water restrictions, making it much more convenient to take. It is a once-daily pill and has been approved for obesity in some regions, with approvals expanding for diabetes.

Expanding approvals globally.

5. Clinical Comparison

Incretin Therapy Classes & Features



Class	Target Receptors	Example Drugs	Dosing Frequency	Approval Status
GLP-1 RAs	GLP-1	Exenatide, Liraglutide, Semaglutide	Daily / Weekly	Approved
Dual Agonists	GIP + GLP-1	Tirzepatide	Weekly	Approved
Triple Agonists	GIP + GLP-1 + Glucagon	Retatrutide	Weekly	Investigational
Oral GLP-1	GLP-1	Oral Semaglutide, Orforglipron	Daily	Approved / Expanding

6. Key Clinical Takeaways

Weight Loss Efficacy: Incretin therapies show progressive potency in weight reduction as additional receptor targets are added (single -- dual -- triple agonists).

Cardiovascular & Renal Protection: Major GLP-1 receptor agonists (e.g., subcutaneous semaglutide, dulaglutide, liraglutide) have proven cardiovascular and kidney-protective benefits in major clinical outcomes trials.

Adherence & Delivery: Once-weekly subcutaneous injections significantly improve long-term patient compliance, while non-peptide oral options (like Orforglipron) remove food/water intake restrictions associated with oral semaglutide.

Multi-Hormonal Horizon: Co-targeting glucagon alongside GIP and GLP-1 increases energy expenditure and hepatic fat clearance while maintaining glycemic control.

7. Conclusion

Incretin-based therapies represent a rapidly evolving and highly effective class of treatments for diabetes and obesity. From single GLP-1 receptor agonists to advanced triple agonists, the therapeutic landscape is shifting toward more potent, multi-targeted approaches. With ongoing research and expanding oral options, these therapies are set to play an even greater role in metabolic disease management.

THE TWO WINDOWS

Diabetes, surgical site infection, and the part of the pathway that belongs to primary care

Dr Ifra Nasir | Dr Faisal Sultan | Mr Nadeem Paul

Shaukat Khanum Memorial Cancer Hospital & Research Centre, Lahore. doc-torifranasir@gmail.com

A patient with type 2 diabetes comes in with gallstones. You refer her. She is booked for a cholecystectomy in about six weeks, has the operation, and comes back to you two weeks after discharge with a wound that looks redder than it should.

Two long stretches sit in that story. Six weeks before, several weeks after. Both are yours. In between is a hospital stay of two or three days that belongs to the surgeon, and almost everything written about surgical site infection is about those two or three days.

Yet many of the things you can actually change sit in the stretches on either side. So, usually, does the moment the infection is found.

WHY THIS CONCERNS YOUR CLINIC

31.4%	1 in 4	1.53
of Pakistani adults have diabetes, the highest rate in the world	of them do not know they have it	odds ratio for surgical site infection in diabetes

IDF Diabetes Atlas 2025¹ · Martin et al, meta-analysis across surgical specialties²

1. THE HbA1c QUESTION, HONESTLY

A meta-analysis of twelve studies and 25,036 patients having planned major abdominal surgery found raised HbA1c linked to:

- Wound infection, odds ratio 1.21
- Anastomotic leak, odds ratio 2.80
- Major complications, odds ratio 2.16³

But read further. No cut-off between 5.7 and 7.0 per cent predicted wound infection better than any other, and the wound infection figure came from only three studies, all graded low quality.

THE GUIDELINES DO NOT AGREE EITHER

Body	HbA1c threshold	Note
US Society for Ambulatory Anesthesia	7.0%	Lowest of the three ³
Joint British Diabetes Societies	8.5%	Middle ³
Australian Diabetes Society	9.0%	Highest ³
ADA 2026	Below 8% within 3 months	Or GMI below 8% or TIR above 50%, both needing CGM ⁴

IMPORTANT

A high HbA1c is a reason to work on the glucose and to mention it in the referral letter. It is NOT a reason to hold the referral back. Deferring an operation is the surgical team's decision. Cancer surgery, vascular emergencies and limb-threatening infection should never wait for better glucose control.

AROUND THE OPERATION, THE EVIDENCE IS FIRMER

- **ADA:** perioperative glucose 100 to 180 mg/dL. The diabetes-specific figure and the most practical one.⁴
- **CDC:** keep perioperative glucose below 200 mg/dL, with or without diabetes. Read as a ceiling, not a target.⁵
- **WHO:** tight perioperative control for everyone, but only a conditional recommendation on low-certainty evidence, and deliberately no number given, because of hypoglycaemia risk.⁶

Remember stress hyperglycaemia

Surgery raises glucose in almost everyone. This is not diabetes: it is temporary, it does not mean a chronic condition, and it appears to carry risk of its own. In a country where a quarter of people with diabetes do not know it, the undiagnosed patient on your list may be the more vulnerable one.

2. THE WEEKS BEFORE SURGERY

Work on the daily glucose. The HbA1c will hardly move in six weeks, so the day-to-day readings are what you can influence. A patient sitting at 250 to 300 mg/dL on the morning of surgery is in a different position from one at 160.

THEN THE THINGS NOBODY HAS TIME FOR ON A BUSY WARD

- **Feet.** An ulcer anywhere is a possible source, and a team focused on the abdomen will not go looking for it.
- **Skin and teeth.** Untreated skin infection or dental sepsis, same principle.
- **Smoking.** This is the period in which stopping can help wound healing.
- **Nutrition.** Matters more in our patients than the literature from richer countries suggests.
- **Anaemia.** Costs very little to find now, and will otherwise turn up on the morning of the operation.

An honest note: the evidence linking each of these on its own to fewer wound infections varies quite a bit in strength. They work best understood as parts of getting the patient ready overall, rather than as separately proven treatments.

And remember: many diabetic surgical patients here come in as emergencies, with an obstructed hernia or a perforation. There is no six-week window at all. For them, everything depends on the period after discharge.

3. MEDICINES: WHAT HAS CHANGED

Drug	What to do	Why
SGLT2 inhibitors	Stop 3 to 4 days before planned surgery. Ertugliflozin, 4 days. Restart only once eating and stable. ⁴	Euglycaemic DKA. Dangerous because the glucose looks fine while the patient is acidotic.
GLP-1 agonists	Weekly injections held for a week, daily oral dose on the day. Follow local hospital guidance.	Delayed gastric emptying, aspiration risk. Societies do not fully agree and advice keeps changing.
Metformin and other tablets	Held on the day of surgery. ⁴	Standard perioperative practice.
Insulin	Needs a plan, not a rule. Belongs to the anaesthetic team.	They need an accurate list of what the patient is really taking.

THE SGLT2 POINT IS A PRIMARY CARE JOB

Three to four days before surgery, the patient is at home. If nobody tells them, nobody stops it.

- In emergency surgery there is no time to stop it at all. Watch closely for ketoacidosis afterwards.⁴
- It has been reported even after the drug was stopped in good time.
- In any unwell patient after surgery who has taken one of these, check ketones, and check them even when the glucose is normal. That is the whole meaning of the word euglycaemic.
- More patients now take these for heart failure or kidney disease, where stopping brings its own

4. THE LETTER, AND THE CONVERSATION

Most referral letters say the patient has diabetes and leave it there. A team that gets the detail below can plan before the patient arrives, instead of working it out on the morning of the list.

PUT IN THE REFERRAL LETTER

- Current HbA1c, with its date
- Full medicine list, including any SGLT2 inhibitor or GLP-1 agonist
- Whether they are on insulin
- Recent home glucose readings
- Any recent hypoglycaemia
- Whether they use CGM
- A recent eGFR
- Any neuropathy or foot problem

TELL THE PATIENT, IN TWO MINUTES

- The wound will be slightly red and sore for a few days, and this settles
- You can shower safely after 48 hours
- If redness, pain or discharge increases after day three, come and be seen
- Come back to me even after the surgeon discharges you

NICE recommends that patients and carers be given information on how to recognise a surgical site infection and who to contact if worried.⁷ Primary care is the on-ly part of this pathway that sees the patient both before they are frightened and after they are discharged.

5. AFTER DISCHARGE: THE PART EVERYONE FORGETS

Most surgical site infections appear after the patient has gone home. The wound looks fine at discharge on day two or three. It shows up at day eight, or day twelve, in a clinic. Very often yours.

So primary care is doing much of the surveillance for surgical site infection in this country, without anyone having planned it that way. Work from Karachi has looked at how far patients recognise and report their own

wound infections, giving some idea of how much happens outside any hospital record.⁸ Ways of doing post-discharge surveillance exist and are well described. The difficulty in most low- and middle-income settings is doing it, not knowing how.

A PRACTICAL HABIT

Where you can, see the patient around seven to ten days after discharge, particularly those with diabetes or other known risk factors, whether or not the surgical team arranged anything. That is when most of these show up.

6. SPOTTING IT

Normal healing has some redness in the first three or four days, and it fades. Infection appears later, and gets worse rather than better.

RED FLAGS IN CLINIC

- Redness spreading rather than shrinking
- New or worsening pain after day three, when pain should be settling
- Discharge that is not thin and clear
- Warmth and firmness around the wound
- Wound edges coming apart
- Fever
- A patient who felt better three days ago than they do now
- Pain out of proportion to a normal-looking wound. Deep infection may show very little on the surface.

HOW LONG DOES THE RISK LAST?

Type of infection	Surveillance period
Superficial wound infection	30 days after any operation ⁹
Deep and organ-space infection	30 or 90 days, depending on the operation. The longer period covers many implant procedures ⁹

So a joint replacement patient turning up at week ten is still well within the relevant period, even though it feels late.

THE CLUE THAT BELONGS TO A DIABETES CLINIC

This works both ways. High glucose makes infection more likely, and infection pushes glucose up.

A patient whose control was reasonable before surgery, whose numbers have gone off in the second week afterwards with no change in diet or medicines, may be telling you about their wound before the wound does.

Glucose getting worse for no clear reason after recent surgery is worth a look at the incision, even if the patient has not raised it.

7. WHEN YOU FIND ONE

SWAB FIRST, WITH ONE EXCEPTION

- Take a wound swab before starting antibiotics whenever there is pus or you genuinely suspect infection, especially if the result would change what you do.
- This is not a reason to swab every slightly red wound. That grows organisms which are only sitting there and leads to treatment nobody needed.
- **NEVER delay antibiotics in a patient who is septic or unwell. Treat first, swab as you go.**

WHY THE SWAB MATTERS

52.9%	63.0%	40.8%
of isolates were Gram-negative	resistant to amoxicillin-clavulanate	resistant to ciprofloxacin

Four-year study, one Karachi hospital.¹⁰ These are one hospital's figures and should not be treated as national, since resistance varies a lot across Pakistan. But in places with similar patterns, co-amoxiclav or a fluoroquinolone may well not work. Empirical treatment should follow local sensitivity data wherever those exist, and they only exist if someone sends swabs.

Antibiotics alone are often not enough. A collection needs draining, and that is a surgical decision. If there is fluctuance, if the patient is unwell, if cellulitis is spreading, or if there is an implant, send them back to the operating team.

THE DRESSING ITSELF

- **Aseptic non-touch technique** for changing or removing any surgical wound dressing, not a clean technique.⁷
- **Hand hygiene** before and after every wound contact, not once at the start of a session.
- **A fresh pack per patient**, never one opened for someone else.
- **Sterile saline** for cleansing up to 48 hours after surgery.⁷
- **Tap water is acceptable after 48 hours** if the wound has separated or has been opened to drain pus. Worth knowing where sterile saline is not always to hand.⁷

DO

- Swab before treating, unless the patient is septic
- Use aseptic non-touch technique for every dressing
- Send it back if it needs draining
- Follow local sensitivity data for empirical choices
- Tell the surgical team what you found

DO NOT

- Put topical antimicrobials on a wound healing by primary intention. NICE and CDC both advise against it, the CDC as a strong recommendation^{5,7}
- Use Eusol and gauze, moist cotton gauze or mercuric antiseptics on a wound healing by secondary intention⁷
- Give antibiotics for thin clear discharge in a well patient
- Carry on a hospital antibiotic just because hospital started it

That last one matters more than it looks.

Your patient may arrive holding a week of an oral cephalosporin with no indication written anywhere. Prophylaxis is meant to stop when the wound is closed. Carrying it on in a well patient with a clean wound only breeds the organisms that will make the next infection harder to treat.

And tell the surgical team what you found, including in cases you handle yourself. An infection treated entirely in primary care never reaches the surgeon's records. That is a real and largely hidden reason why Pakistani rates look better on paper than they are. A phone call fixes it.

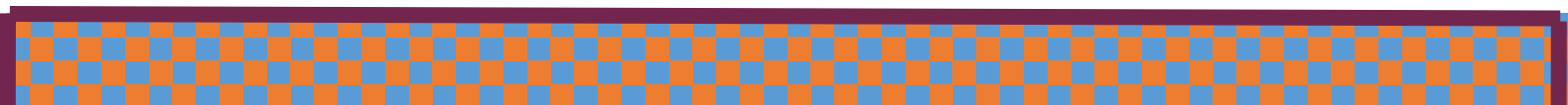
IN SUMMARY: FIVE THINGS TO TAKE BACK TO CLINIC

- 1 Use the weeks before surgery for daily glucose, feet, smoking, nutrition and anaemia. Aim for HbA1c below 8 per cent if there is time, but never hold up a referral for it, and never delay cancer or emergency surgery for glucose control.
- 2 Stop the SGLT2 inhibitor three to four days before planned surgery, because if you do not tell the patient, nobody will. Restart when they are eating and stable, and check ketones in any unwell patient afterwards even when the glucose is normal.
- 3 Put the diabetes detail in the referral letter, and spend two minutes telling the patient what to look for and when to come back.
- 4 Where you can, review at seven to ten days after discharge. Look at the wound when the glucose goes off for no reason.
- 5 Swab before you treat when you suspect infection, unless the patient is septic. Use aseptic non-touch technique. Send it back if it needs draining. And tell the surgical team what you found.

The two or three days in hospital get all the attention. The periods on either side offer important chances that are regularly overlooked, and they belong to primary care.

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*Dr. Muhammed
Saleem Khan*

PFN-Online & Team PCDA Congratulates
Dr. Muhammed Saleem Khan,
 (Head of AJK/GB region of PCDA Pakistan)
 on his appointment as member
 (Professional category) of
**Azad Jammu and Kashmir Public Service
 Commission.**



The FDA officially approves new cholesterol-lowering drug Enlicitide

It is a major milestone because it is the first-ever oral PCSK9 inhibitor approved for adults with high cholesterol (hypercholesterolemia), including those with the inherited genetic condition heterozygous familial hypercholesterolemia (HeFH).

Here is what makes this approval a big deal:

1. Goodbye Injections, Hello Daily Pill

Until today, if a patient needed a PCSK9 inhibitor to lower their cholesterol, they had to use injectable medications like Repatha or Praluent. Lipfendra delivers that exact same powerful mechanism in a convenient, once-daily 20 mg tablet taken by mouth.

2. Massive Reductions in "Bad" Cholesterol

The drug uses novel macrocyclic peptide technology to block the PCSK9 protein. In its Phase 3 clinical trials (the CORALreef program), Lipfendra demonstrated staggering efficacy when added to diet and exercise:

- 56% reduction in LDL-C (bad cholesterol) in standard high-cholesterol trials.

- 59% reduction in LDL-C for patients with the genetic condition HeFH.

It is capable of crashing dangerous LDL levels down to the 50s or 60s—far lower than what standard statins can typically achieve alone.

3. Safety and Next Steps

The safety profile in the trials was generally comparable to a placebo, though some patients experienced mild side effects like dizziness or diarrhea. While its ability to slash cholesterol is clear, Merck is currently running long-term trials to definitively prove how much the pill reduces overall cardiovascular events like heart attacks and strokes.

It is expected to completely reshape the landscape for patients who are statin-intolerant or who simply can't hit their target numbers with standard pills.

Reported by: Dr. Shafqat Mirza



DIABESITY FRONTLINE

A Message from Dr. Riasat Ali Khan (President PCDA)



It is with great pride and sincere joy that I extend my heartfelt congratulations to the entire team of Lyallpur Diabetes Foundation (LDF), Faisalabad on the launch of the very first issue of your newsletter.

This is not just the beginning of a publication. This is the beginning of a stronger voice for diabetes care in our region.

Lyallpur Diabetes Foundation has always stood for what matters most: Prevention, Awareness, Education, and Welfare. In a city like Faisalabad, where lifestyle changes, urbanization, and limited access to specialized care have made diabetes a growing challenge, the work LDF is doing is both timely and vital.

As President of the Primary Care Diabetes Association of Pakistan (PCDA), an International Diabetes Federation registered society, I have had the privilege of seeing firsthand how grassroots organizations can transform communities. That is exactly the same vision I see reflected in LDF.

When we work together, our impact is multiplied.

Together, we are committed to making a difference.

1. Prevention - Raising awareness through camps, risk factor screening, and education.

can stop diabetes before it starts.

2. Awareness - Breaking myths about diabetes through seminars, media, and now through this newsletter, so every home in Faisalabad knows the warning signs.

3. Education - Training doctors, paramedics, and patients on self-care, diet, exercise, and modern treatment so they can live healthy, productive lives.

4. Welfare - Supporting the underprivileged with access to medicines, insulin, and foot-care services, because no one should suffer due to lack of resources.

The launch of this newsletter is a major achievement in that journey. A newsletter creates a bridge between doctors and patients, between the clinic and the community. It will share success stories, medical updates, dietary guidance, and most importantly, hope.

I congratulate the LDF management, patron, executive team, volunteers, and all healthcare professionals who have made this possible. Your dedication reflects the

shoulder to shoulder with LDF.

on training programs,

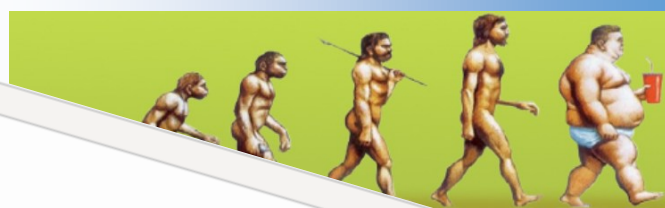
ness campaigns, and

together, we can build a

ected early, managed

possible.

PCDA Pakistan Congratulates Lyallpur Diabetes Foundation (LDF) on the release Its official Biannual Newsletter "Diabetesity Frontline"



DIABESITY FRONTLINE

Executive Members

Dr. Aamir Shaukat
Patron-in-Chief, LDF /
Pro Vice-Chancellor,
Faisalabad Medical University

Dr. Ahmad Shahzad
President,
LDF

Dr. Ijaz Anwar
General Secretary,
LDF

Dr. Mohammad Tahir
Finance Secretary,
LDF

Dr. Sohail Anjum
Executive Member

Dr. Yousaf Ikram
Executive Member

Masood Ahmad
Treasurer

News and Action

Leadership in Diabetes Care and Star of PCDA Awards

Dr. Aamir Shaukat, Patron-in-Chief of LDF, and Dr. Ahmad Shahzad, President of LDF, received the Leadership in Diabetes Care and Star of PCDA Award, respectively, on 17 January 2026 in recognition of their contributions to diabetes care and awareness.

Symposium on Diabetes in Ramadan



A Symposium titled Diabetes in Ramadan was held on 17 February 2026 in Faisalabad to promote evidence-based diabetes management during fasting, and launch the organization's first Instruction Manual for Diabetes in Ramadan.

Presentations were delivered by Dr. Muhammad Ijaz Anwar, Dr. Usman Musharraf, Prof. Dr. Sohail Anjum, Dr. Ahmad Shahzad, while the inauguration was performed by Dr. Aamir Shaukat, and Dr. Zafar Ali Choudhry and Dr. Yaseen Hashmi.

Memorandum of Understanding between LDF, WPG and PCDA



BI-ANNUAL NEWSLETTER DIABESITY FRONTLINE

News and action from LDF's war on diabetes and obesity

FROM THE EDITOR'S DESK The Inaugural Issue of LDF Bi-Annual Newsletter

Welcome to the inaugural issue of *Diabetesity Frontline*, the bi-annual publication of Lyallpur Diabetes Foundation. This publication marks another important step in the Foundation's journey of promoting diabetes education, public awareness and patient welfare. Through *Diabetesity Frontline*, we hope to share not only the Foundation's activities and achievements, but also knowledge, experiences and ideas that contribute towards healthier communities. Diabetes and obesity continue to pose significant public health challenges worldwide, and Pakistan is no exception. Increasingly, these conditions are affecting individuals and families across all age groups and backgrounds. Yet, many cases can be prevented or better managed through timely diagnosis, informed choices and sustained lifestyle modifications. Awareness, therefore, remains one of the most important tools in addressing these challenges.

Continued on Page 5

In Conversation with President LDF Dr. Ahmad Shahzad



Q. LDF was established in 2021. What inspired you to establish the Foundation?
Dr. Ahmad: Diabetes and obesity are among the most significant health challenges of our time, affecting millions of people and placing considerable burdens on individuals, families and healthcare systems. Lyallpur Diabetes Foundation was established with the aim of addressing these challenges through prevention, education, and patient support.

A Message from Patron-in-Chief



Professor
Aamir Shaukat
Pro Vice-
Chancellor,
Faisalabad
Medical
University
(FMU)

Diabetes and obesity continue to pose significant challenges to the healthcare system in Pakistan, highlighting the urgent need for specialized medical education, collaborative learning and patient-centered healthcare solutions. Strengthening professional capacity in diabetes prevention, diagnosis and management will remain central to addressing the growing burden of these

Continued on Page 3

A Message from the General Secretary



Dr. Ijaz



Daily DIABETES FOOT CARE

Small Steps Today, Healthy Feet Tomorrow

A message from
PCDA WOMEN WING

♥ TAKE CARE OF YOUR FEET, PROTECT YOUR TOMORROW ♥



1. CHECK DAILY

Inspect your feet every day for cuts, blisters, redness, swelling or changes.



2. WASH GENTLY

Wash your feet daily with lukewarm water and mild soap. Dry them well, especially between the toes.



3. MOISTURIZE

Apply moisturizer to prevent dryness and cracks. Avoid applying between the toes.



4. TRIM NAILS

Cut your toenails straight across. Avoid cutting too deep or rounding the edges.



5. WEAR COMFORTABLE SHOES

Use well-fitting, comfortable footwear. Avoid walking barefoot.



6. WEAR CLEAN, DRY SOCKS

Change socks daily. Choose soft, seamless socks to avoid irritation.



7. CHECK TEMPERATURE

Ensure water is not too hot. People with diabetes may not feel burns or injuries.



8. AVOID SMOKING

Smoking reduces blood flow and delays healing.



9. STAY ACTIVE

Regular physical activity improves blood circulation and overall foot health.



10. GET REGULAR CHECK-UPS

Visit your healthcare provider regularly for foot examination and early detection of problems.



Healthy feet, better life.

A little care every day can prevent serious complications tomorrow.

If you notice any wound, sore, swelling, numbness or color change,

CONTACT YOUR DOCTOR IMMEDIATELY.

By:
Dr Hira Bagai



Primary Care Diabetes Association
Pakistan

PCDA Women Wing Podcast
Series – Episode 2
Report in September Issue
Of PFN-Online



PCDA
WOMEN'S FORUM
A Wing of
Primary Care Diabetes Association Pakistan
Member of IDF



SPEAKER

Dr. Shakeel Ahmed

- Consultant Diabetologist, Endocrinologist & Diabetic Foot Specialist
- Executive Director, College of Family Medicine
- Media Head, Primary Care Diabetes Association Pakistan (PCDA.PK)



MODERATOR

Dr. Hira Sabih Baqai

MBBS, MSc (Diabetes and Endocrinology)
Consultant Endocrinologist and
Family Physician

SESSION 2

Topic

**Diabetic Foot: Prevention
is Better Than Amputation**



15 August 2026
(Saturday)



1:00 PM



LIVE

Live Facebook Session



Community Comes First: **PCDA & STEP Lead Free Diabetes Screening Drive**

Diabetes Care Beyond Clinic Walls: PCDA & STEP Reach Out to the Community

KARACHI, AUGUST 9, 2026: More than 90 members of the local community received free diabetes screening, medical consultation and health education at a community-based medical camp organized by the Primary Care Diabetes Association (PCDA) Pakistan in collaboration with the Student Taskforce for Education and Public Health (STEP).

Held at Prem Sagar Charitable Dispensary, Shri Swaminarayan Mandir, Karachi, the three-hour outreach initiative brought essential diabetes screening and preventive healthcare services directly to the community.

The camp, held from 11:00 AM to 2:00 PM, was part of PCDA's continuing efforts to promote early detection, prevention and better diabetes care at the primary-care level.

CAMP AT A GLANCE

90+ — People screened

HbA1c — Free testing
 Blood Sugar — Fasting & random testing
 Cholesterol — Free screening
 BMI — Assessment provided
 Medical Consultation — Free expert advice
 Lifestyle Education — Dietary & preventive counselling

Screening Today Can Prevent Complications Tomorrow

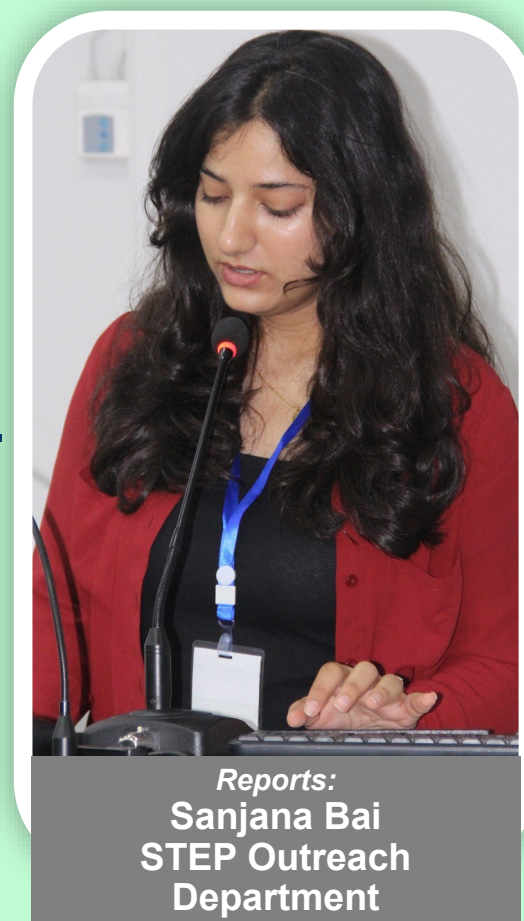
For many people, diabetes can remain silent for years before symptoms become noticeable. The camp provided an opportunity for community members to assess their health status and seek professional advice without financial barriers.

Participants were offered HbA1c, fasting and random blood glucose testing, cholesterol screening and BMI assessment, along with medical consultations and diabetes awareness sessions.

The healthcare professionals also emphasized the importance of recognizing diabetes risk early and adopting healthier dietary and lifestyle practices to reduce the burden of diabetes and its complications.

A Strong Medical Team Serves the Community

The camp was held under the supervision of Dr. Riasat Ali Khan, President PCDA Pakistan, and Muhammad Saud Abbasi, Director Outreach & Campaigns.



Reports:
Sanjana Bai
 STEP Outreach
 Department

A dedicated team of volunteer physicians provided clinical consultations and guidance to participants. The medical team included:

**Dr. Asima Riasat | Dr. Shakeel Ahmed | Dr. Shahid Akhter |
Dr. Naresh | Dr. Iqbal M. Batavia**

Their voluntary contribution added significant clinical value to the screening initiative and ensured that participants received professional medical guidance following their assessments.

Nutrition Takes Centre Stage

Diabetes prevention is not limited to testing—it also requires sustained lifestyle change. Adding an important dimension to the camp, **Ms. Rabia Tirmizi**, representing the Diet & Education Wing (DEW) of PCDA, actively counselled participants on healthy eating and lifestyle modification.

She provided practical dietary guidance aimed at helping individuals make healthier food choices and adopt sustainable habits for better metabolic health.

STEP Outreach Team: Young Volunteers, Big Impact



The successful organization of the camp reflected the growing contribution of STEP in community-based preventive healthcare.

The initiative was coordinated by **Sanjana Bai** of the STEP Outreach Department, whose efforts helped ensure smooth coordination of the activity. Special recognition was given to **Ms. Amna Aleem**, who was named Volunteer of the Camp in appreciation of her enthusiasm, dedication and active participation throughout the event.

The energy and commitment of STEP volunteers once again demonstrated how young healthcare professionals and students can become powerful partners in promoting health awareness within communities.

Community Partnership Makes the Difference



PCDA and STEP expressed their sincere appreciation to Prem Sagar Charitable Dispensary at Shri Swaminarayan Mandir, Karachi, for its valuable collaboration and support. Special thanks were extended to **Dr. Suresh** and **Mr. Santosh**, heads of the trust, for their cooperation, efficient management and on-ground assistance. Their support helped create a welcoming and well-organized environment for the community members attending the camp.

From Screening to Prevention

The Karachi camp was more than a medical screening activity. It was a practical demonstration of how community outreach, early detection, professional consultation and health education can work together to prevent disease and improve quality of life.

For PCDA Pakistan, such initiatives represent the essence of its “Prevention First” philosophy—taking healthcare beyond hospital walls and bringing knowledge and preventive services closer to the people.

With the continued support of healthcare professionals, volunteers, community organizations and partner institutions, PCDA and STEP remain committed to building healthier, better-informed and diabetes-aware communities across Pakistan.

Diabetes Care Beyond Clinic Walls: PCDA & STEP Reach Out to the



PREVENTION FIRST — BECAUSE EARLY ACTION CAN CHANGE LIVES.





Head of Multan Chapter of PCDA addresses in a conference in PC Bhurban



Dr. Irfan Shaukat, Head of the Multan Chapter of the Primary Care Diabetes Association (PCDA) Pakistan, delivered an informative and highly interactive session on **Gastro-Esophageal Reflux Disease (GERD)** at a medical conference held at **PC Bhurban**.

Dr. Muhammed Irfan Shaukat discussed GERD, with particular emphasis on issues frequently encountered by physicians in primary care. The session generated considerable interest and active participation from the attending physicians. Known for his strong academic credentials and engaging teaching style, Dr. Irfan Shaukat enjoys considerable popularity among primary care physicians. His ability to translate clinical knowledge into practical guidance made the session particularly valuable for the participants.

The interactive discussion and exchange of clinical experiences reflected the growing importance of continuous medical education in strengthening the capacity of primary care physicians.



5 Morning Habits That May Harm Your Brain Health—and What to Do Instead

Dr. Faryal Tariq
Coordinator:
PCDA Women Forum



Simple morning changes for people with and without diabetes. Our mornings provide a valuable opportunity to prepare the brain and body for the day ahead. The first hour or so after waking can influence our alertness, mood, concentration, energy levels, and overall productivity.

Yet, many of us unknowingly begin the day with habits that may work against our physical and mental well-being. These habits are particularly relevant for people living with diabetes, where healthy sleep, hydration, physical activity, stress management, and stable blood glucose levels are important components of overall health.

Let us look at five common morning habits, understand why they may be unhelpful, and explore healthier alternatives.

Checking Your Phone Immediately After Waking

1 For many people, reaching for the smartphone is the first action of the day. Social media, news, emails, work messages, and notifications can immediately expose us to information and potential stress.



Why it may be problematic:

During the first part of the morning, the body naturally experiences the Cortisol Awakening Response (CAR)—a rise in cortisol that helps prepare us for the demands of the day.

Immediately immersing ourselves in stressful news, work-related messages, social media, or other stimulating content may add unnecessary mental stress at a time when the brain and body are still transitioning from sleep to wakefulness.

What can we do instead? Rather than beginning the day reactively, it may be better to give ourselves some quiet time to wake up naturally.

Try delaying phone use for 30–45 minutes after waking, whenever practical. Use this time for:

- ♦ Drinking water
- ♦ Getting some natural daylight
- ♦ Gentle stretching or walking
- ♦ Personal reflection, prayer, or meditation
- ♦ Preparing for the day without digital distractions

A calm beginning can help create a more focused and intentional day.

2 Missing Morning Natural Light

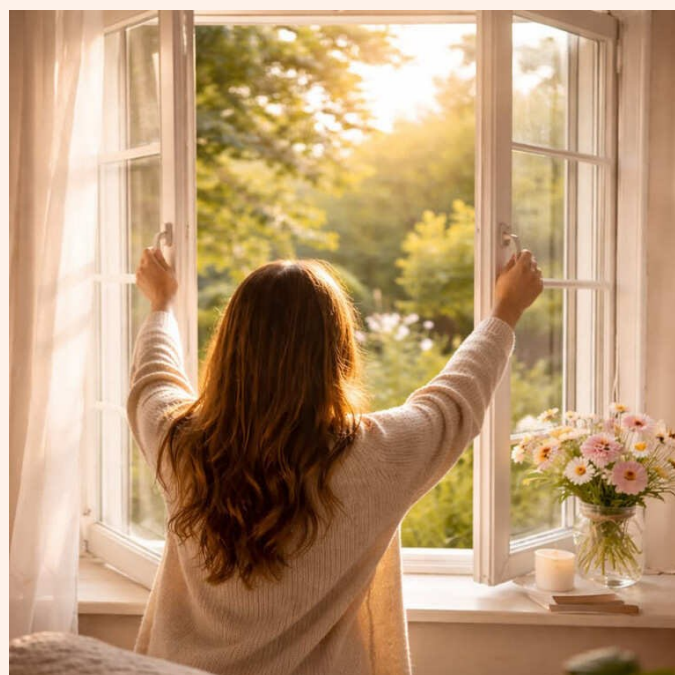
Modern lifestyles often keep us indoors from morning until evening. As a result, many people receive very little natural daylight during the early part of the day.

Why it may be problematic:

Light is one of the most important signals that regulates our circadian rhythm—the body's internal biological clock.

Morning light reaches the eyes and sends signals to the brain's suprachiasmatic nucleus (SCN), which helps coordinate daily rhythms, including sleep-wake timing and hormone secretion. Appropriate morning light exposure can help:

- ◆ Synchronize the body clock
- ◆ Promote daytime alertness
- ◆ Support a healthy cortisol rhythm
- ◆ Regulate evening melatonin production
- ◆ Support mood and sleep quality
- ◆ Insufficient exposure to daytime light may contribute to feeling sluggish during the day and may interfere with healthy sleep patterns.



What can we do instead? What can we do instead?

Whenever possible, spend some time outdoors soon after waking.

A practical target is 10–20 minutes of natural daylight, depending on the weather, season, and intensity of light.

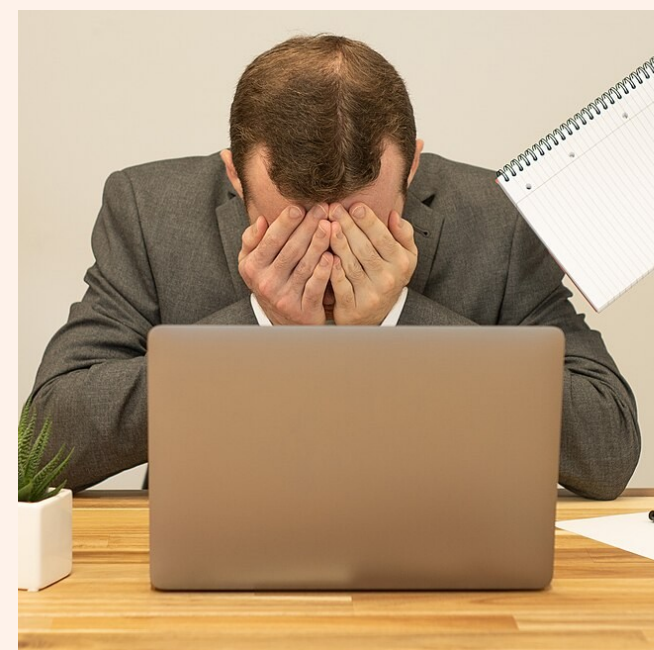
Important: Never look directly at the sun. Sunglasses may be appropriate when needed for comfort or eye protection.

If outdoor light is not available because you wake before sunrise or cannot go outside, bright indoor lighting may be helpful. Light-therapy devices should be used according to appropriate safety guidance, particularly by people with eye conditions.

3 Jumping Straight Into Demanding Mental Work

Some people wake up and immediately begin complex work, studying, or tasks requiring intense concentration.

Although the quietness of the early morning can be useful for productivity, the brain does not instantly transition from sleep to peak cognitive performance.



Why it may be problematic

After waking, many people experience sleep inertia—a temporary period of reduced alertness, attention, and cognitive performance.

The brain and body need some time to fully transition from sleep to wakefulness.

Immediately demanding intense concentration may therefore feel unnecessarily difficult, particularly after insufficient or poor-quality sleep.

What can we do instead?

Give your brain and body some time to wake up. Try:

- ◆ Natural morning light
- ◆ Drinking water
- ◆ Gentle stretching

- ♦ A short walk
- ♦ Simple morning tasks
- ♦ A few minutes of quiet planning

Once you feel more alert, move on to tasks requiring deeper concentration.

4 Starting the Day With a Highly Sugary Breakfast

Breakfast choices such as sugary cereals, sweetened drinks, pastries, or bread with large amounts of jam may provide a quick burst of energy—but they may not provide sustained nourishment.

Why it may be problematic

A breakfast high in rapidly absorbed carbohydrates and added sugars can produce a rapid rise in blood glucose, followed by a decline. These fluctuations may contribute to hunger, tiredness, or reduced energy in some people.

This is particularly important for people with diabetes, who need to pay attention to carbohydrate quality and quantity and to their individual glucose response.



What can we do instead?

What can we do instead? Build breakfast around protein, fiber, and minimally processed foods. Examples include:

- ♦ Eggs with vegetables and whole-grain bread
- ♦ Unsweetened yogurt with nuts and seeds
- ♦ Chickpeas or other legumes with vegetables
- ♦ Cottage cheese or other protein-rich options
- ♦ A balanced breakfast containing protein, fiber, and healthy fats

For many adults, a protein-rich breakfast can improve satiety and help support sustained energy. Individual nutritional needs vary, so people with diabetes should choose breakfast according to their treatment plan, glucose patterns, and dietary requirements.

5 Starting the Day Without Hydrating



After several hours of sleep without drinking, it is normal to wake up somewhat thirsty or mildly dehydrated.

Why it may be problematic

Even mild dehydration can affect how we feel and may negatively influence aspects of attention, mood, and cognitive performance. Adequate hydration is important for the normal functioning of virtually every system in the body, including the brain.

Best Times to Drink Water

WebMD

What can we do instead?

Start the day with a glass of water. For many people, approximately 250–350 mL is a reasonable starting amount,

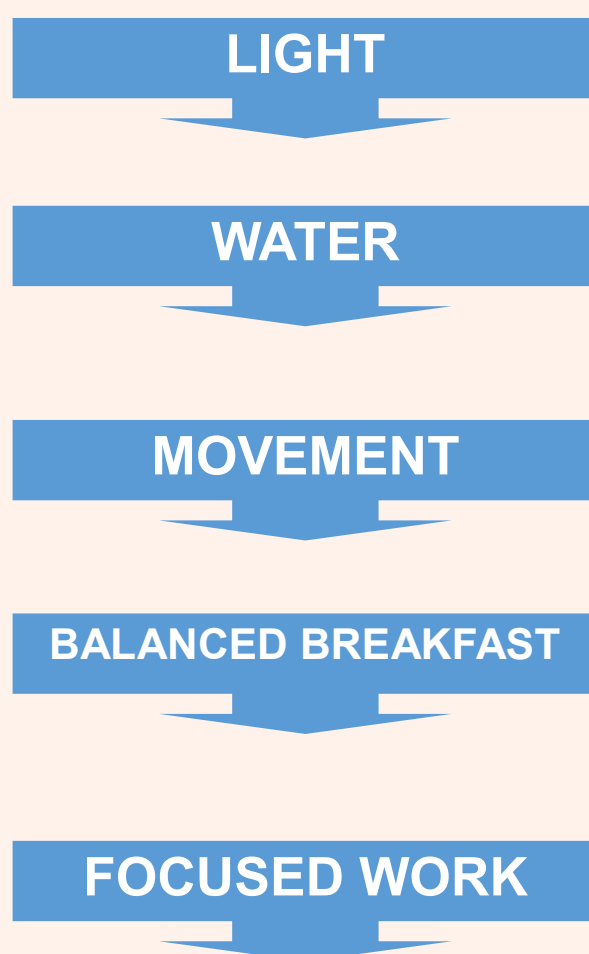
although fluid requirements vary according to body size, climate, physical activity, diet, and medical conditions.

Keeping a glass or bottle of water nearby can make hydration easier.

People with medical conditions requiring fluid restriction should follow their healthcare professional's advice.

The Take-Home Message

These habits may appear small, but our daily routines are built from small choices. Instead of beginning the day with stress, screens, darkness, inactivity, sugary foods, and dehydration, consider beginning with:



These simple steps can help support brain function, mood, energy, concentration, sleep quality, and overall metabolic health.

For people with diabetes, these habits can complement—though never replace—appropriate glucose monitoring, medication, nutrition, physical activity, and medical care.

Your brain deserves a better start to the day.

Start small. Build healthy morning habits.

Let your first hour set the tone for the rest of your day.

Whole You, Whole Life: Understanding Diabetes and Reproductive Health

A guide to Family, Fertility & Diabetes



Diabetes is about more than blood sugar numbers. It's about your whole life — including your plans for family and your reproductive health. But here's the encouraging truth: most of these complications can be prevented, managed, or treated with the right care. Whether you're planning a pregnancy, concerned about sexual health, or simply want to understand how diabetes affects your reproductive life, this information is for you.

Diabetes and Men's reproductive Health

How Diabetes May Affect **Male Fertility**



Why We Talk About This

The 2026 ADA Standards specifically recommend that all men with diabetes be screened for sexual dysfunction. Why? Because it's treatable, it affects quality of life, and it can signal other health problems.

What Can Happen

Erectile Dysfunction (ED):

ED is the most common sexual problem in men with diabetes, affecting up to 75% of men with long-standing diabetes. It's caused by two main mechanisms:

Vascular damage: High blood sugar damages blood vessels. Erections require blood flow, so damaged vessels = erectile difficulties.

Nerve damage (neuropathy): Diabetes can harm the nerves controlling blood vessel function. This reduces sensation and erectile response.

This is a medical issue, not a personal failure. It's treatable.

Low Testosterone :

Poorly controlled diabetes can affect hormones, leading to low testosterone levels. This may cause:

Reduced interest in intimacy

Fatigue and mood changes

Muscle loss and weight gain



What Helps

First-Line Approach:

- ◆ Control Your Diabetes & Health
- ◆ Keep A1C below 7% (ideally lower)
- ◆ Keep blood pressure below 130/80 mmHg
- ◆ Keep cholesterol in target (LDL < 100 mg/dL)
- ◆ Exercise 150 minutes per week (improves blood flow and sexual function)
- ◆ Maintain healthy weight
- ◆ Don't smoke (smoking constricts blood vessels)
- ◆ Manage stress and depression (depression worsens ED)

Medical Treatments:

Please Talk to Your Doctor. Although it's not easy to bring up sexual health, but your doctor need to know. This is as important as any other diabetes complication. The earlier you ask, the better the outcomes.

For Men Planning Fatherhood: Sperm Health Starts Early. It takes about 3 months for new sperm to mature. This means your blood sugar control right now affects your fertility 3 months from now.

What Can Happen with Diabetes:

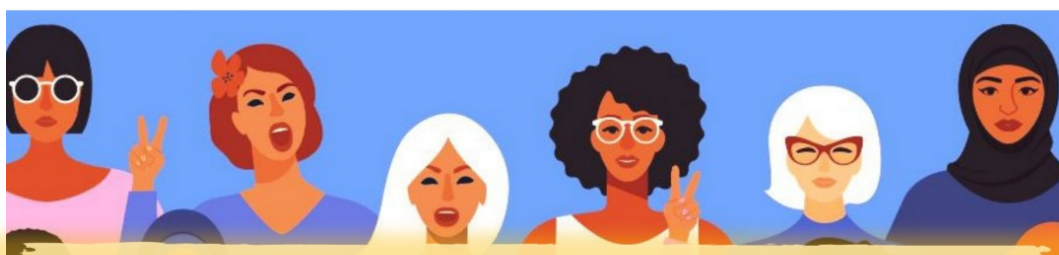
Research shows that men with type 1 or type 2 diabetes can have reduced sperm volume and sperm motility (movement). However—and this is important—these changes do not prevent natural conception or successful fertility treatments in most cases.

How to Protect Your Fertility:

- ◆ Keep your A1C in target (ideally below 7% for general health; aim for <6.5% if planning conception within 3 months)
- ◆ Achieve or maintain a healthy weight
- ◆ Exercise regularly (at least 150 minutes moderate activity per week)
- ◆ Don't smoke; smoking directly harms sperm quality
- ◆ Manage stress and sleep well
- ◆ Avoid tight underwear and prolonged heat near the genitals (affects sperm production)

The Good News:

Most men with diabetes can father children naturally. If conception doesn't happen after 12 months of trying (or 6 months if you're over 35), ask your doctor about fertility evaluation. What the 2026 ADA Standards Say



Diabetes and Women's reproductive Health

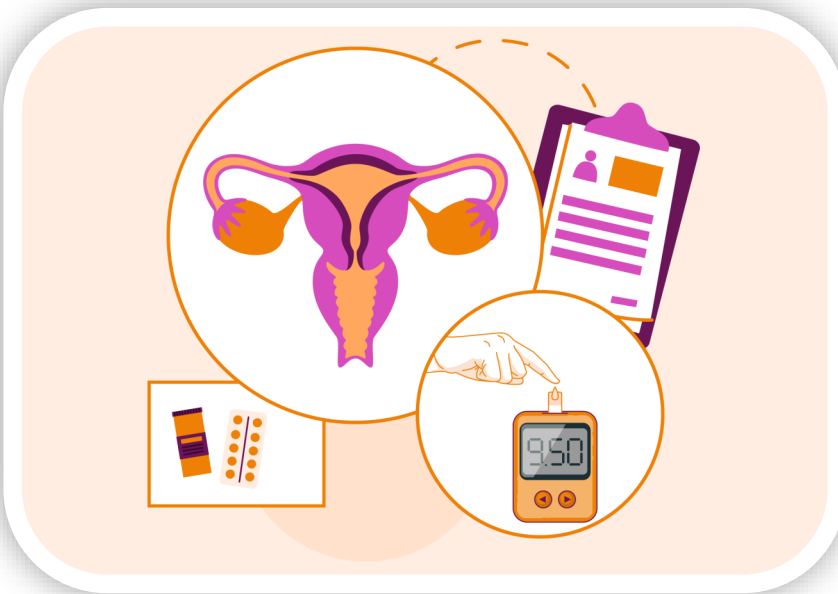


The ADA now specifically recommends that all women with diabetes be asked about sexual health. This is a new standard, reflecting how important this is.

What Can Happen

- ◆ Irregular Periods & Fertility Issues: High blood sugar (hyperglycemia) and low blood sugar (hypoglycemia) can disrupt ovulation and make periods irregular. The good news: with good blood sugar control, most women with diabetes ovulate normally and conceive naturally.
- ◆ Sexual Arousal & Desire Difficulties: Some women with diabetes experience: Reduced interest in sex (low libido) Difficulty with arousal or reaching orgasm
- ◆ Causes include nerve damage (reduced sensation), blood vessel changes, hormonal imbalance, depression, and anxiety. All are treatable.
- ◆ Vaginal Dryness & Discomfort:
- ◆ High blood sugar can reduce vaginal lubrication and elasticity, causing discomfort during intercourse (dyspareunia). This is both common and very treatable.
- ◆ Increased Infections:
- ◆ High blood sugar feeds yeast and bacteria. Women with diabetes are at higher risk for:
- ◆ Vaginal yeast infections (thrush)
- ◆ Urinary tract infections (UTIs)

Recurrent infections can interfere with sexual desire and comfort. Good diabetes control is the best prevention.



What Helps

Master Your Blood Sugar: Most sexual symptoms improve significantly with good glucose control. This is your most powerful tool.

Address Infections Quickly: Don't ignore yeast infections or UTIs. Treat them promptly with your doctor's help.

Simple Over-the-Counter Help:

- ◆ Water-based lubricants: Reduces discomfort from dryness
- ◆ Vaginal moisturizers: Provides lasting hydration
- ◆ Pelvic floor exercises (Kegels):

Strengthens muscles, improves sensation and arousal

Professional Support:

Referral to a gynecologist or sexual health specialist

Referral to a counselor if depression or anxiety is a factor

Prescription options: Vaginal estrogen or other treatments (safe with diabetes)

Planning for Pregnancy with Diabetes

Why Preconception Planning Matters

A landmark systematic review showed that preconception care for pregnant individuals with type 1 or type 2 diabetes significantly reduces birth defects, preterm delivery, perinatal mortality, and neonatal intensive care admissions. For Women Planning Pregnancy

Target A1C Before Conception:

According to the 2026 ADA Standards, aim for an A1C of less than 6.5% (less than 48 mmol/mol) for at least 3 months before trying to become pregnant. This dramatically reduces the risk of birth defects (especially heart, brain, and kidney abnormalities) and miscarriage.

Why 3 months? It takes about 3 months for your baby's organs to form. Your blood sugar control during this critical window directly affects your baby's development.

Medication Review:

Some diabetes medications are safe in pregnancy; others are not.

GLP-1 receptor agonists and dual GIP/GLP-1 agonists should be discontinued before conception. These have not been studied in pregnancy, and you need time to achieve your A1C target after stopping them.

Insulin remains the safest option in pregnancy for type 1 and type 2 diabetes. Many women switch to insulin for pregnancy even if they use other medications otherwise.

Metformin is generally safe and can be continued.

Folic Acid and Prenatal Vitamins: Start a prenatal vitamin with folic acid (400–800 mcg daily) at least 3 months before attempting pregnancy. Higher folic acid reduces birth defect risk, especially in people with diabetes.

After Pregnancy: Gestational Diabetes Follow-Up

- ➔ If there is history of gestational diabetes (or had high blood sugar first detected in pregnancy), follow these steps:
- ➔ Get a glucose tolerance test 6–12 weeks after delivery to confirm blood sugar has returned to normal.
- ➔ Even if test is normal, there is 50% risk of developing type 2 diabetes within 10 years.
- ➔ Get screened every 1–3 years for prediabetes or type 2 diabetes.
- ➔ Start preventive lifestyle changes now: healthy weight, exercise (150 min/week), whole grains, and reduced sugary drinks.

5-Step Action Plan

Step 1: Make Glucose Control Your Priority

Aim for A1C < 7% (or target set by your doctor). This single action protects your nerves, blood vessels, fertility, and sexual health.

Step 2: Bring It Up at Your Next Appointment

Tell your doctor: 'I'd like to talk about my reproductive health / sexual health / family planning.' Your doctor may not ask first, but they want to help.

Step 3: Get Your Annual Comprehensive Diabetes Check. Screen annually for Eye complications (retinopathy), Kidney function (proteinuria, eGFR), Foot health (neuropathy), Heart and blood pressure

Step 4: Live Well: 150 minutes of moderate exercise per week (helps erectile function, improves mood, supports weight management)

Balanced, whole-food meals (not restrictive diets)

7–9 hours sleep per night (poor sleep worsens blood sugar and sexual function)

No smoking (major cause of sexual dysfunction)

Manage stress (yoga, meditation, counseling)

Step 5: Don't Delay on Treatment: If you notice problems with sexual function, fertility, or menstruation—tell your doctor. Most of these problems are treatable, and treatment works better when you start early.

Contact the Healthcare Team: Reach out if:

Planning pregnancy in the next 6–12 months

If notice changes in sexual function (erectile difficulty, reduced desire, discomfort, difficulty with orgasm)

Periods become irregular or you miss periods

Had gestational diabetes and haven't had follow-up glucose testing

Frequent or recurring yeast infections or UTIs

Trying to conceive for more than 12 months (or 6 months if over age 35)

A1C is consistently above 8% or you're having frequent hypoglycemia

Reproductive and sexual health are fundamental parts of diabetes health. You should never feel embarrassed to ask about these topics.

Our goal is the same as yours: to help you live a healthy, fulfilling life—with good blood sugar control, satisfying relationships, and the family you want, built safely.

We have treatment options for nearly every complication mentioned in this guide. And we have time to listen to your concerns.

Never change or stop your diabetes medication because of pregnancy plans or sexual health concerns without talking to us. There are always safe options.

بس۔۔۔ یا بے بس!

خلیق وارثی سرے، وینکوور، کینیڈا



ڈاکٹر خلیق وارثی کا شمار پی سی ڈی اے کے ابتدائی بنیادی ارکان میں ہوتا ہے۔ آج کل کینیڈا میں مقیم ہیں۔ گولڈ میڈلسٹ ڈاکٹر خلیق وارثی نے پنجاب بورڈ کے بورڈ اسکالرشپ امتحانات میں دو مرتبہ فرسٹ کلاس فرسٹ پوزیشن حاصل کی۔ انہوں نے آغا خان یونیورسٹی اور ہسپتال کے شعبہ فیملی میڈیسن میں پروفیسر ڈاکٹر وارثی وارثی اور ان کی ٹیم کی براہ راست نگرانی میں خدمات انجام دیں۔ بعد ازاں ڈاکٹر خلیق وارثی نے سندھ انسٹی ٹیوٹ آف میڈیسن میں ٹرانسپلانٹ فریشن یورولوجی اینڈ ٹرانسپلانٹیشن اور گمبٹ انسٹی ٹیوٹ آف میڈیکل سائنسز اور ماہر امراض غد کی حیثیت سے خدمات انجام دیتے ہوئے پاکستان میں شہرت اور پیشہ ورانہ شناخت حاصل کی۔

میرٹ اسکالرشپ کے ذریعے ڈاکٹر خلیق وارثی نے بعد ازاں بوسٹن، امریکا میں واقع ہارورڈ میڈیکل اسکول سے ہیلتھ کیئر سیفٹی، کوالٹی، انفارمیٹکس اور لیڈرشپ کے شعبے میں ایک سالہ پوسٹ گریجویٹ تربیتی پروگرام مکمل کیا۔ ہارورڈ میں ڈاکٹر خلیق وارثی نے سارا وولرج کے ساتھ مشترکہ طور پر ایک انٹرنیشنل پروجیکٹ پیش کیا۔ اس پروجیکٹ کو دنیا بھر سے شریک 120 رہنماؤں، اسکالرز اور معالجین کی جانب سے پیش کیے گئے 60 منصوبوں میں سے بہترین پریزنٹیشن کے ایوارڈ کے لیے منتخب کیا گیا۔

ڈاکٹر وارثی کی 21 جولائی 2026 کو بای پاس سرجری ہوئی تھی۔ اور الحمد للہ وہ بخوبی صحت یاب ہو رہے ہیں۔

کل بیگم نے ہمارا "بس" والا پیغام پڑھا تو بولیں:

"جھوٹ نہ لکھا کریں، اللہ دیکھ رہا ہے۔۔۔ آپ ہمارے بس میں کہاں ہیں؟"

ہماری رگِ ظرافت پھڑکی۔ دھیرے سے عرض کیا:

"پلیز، گرامر درست کریں۔۔۔ ہماری بس، نہ کہ ہمارا بس!"

بس پھر کیا تھا۔۔۔ چراغوں میں روشنی نہ رہی۔

ہماری بس ہو گئی۔۔۔ اور وہ بچاری بے بس!

آج صبح ڈاکٹر کیارا آئیں اور مسکرا کر بولیں:

"ڈاکٹر وارثی! آج اتوار ہے، چھٹی بھی ہے۔۔۔ تمہارا کیا خیال ہے؟"

چند لمحوں کے لیے دل میں لڈو پھوٹنے لگے۔ ہم سمجھے شاید ہماری لاٹری نکل آئی ہے۔ پھر خیال آیا کہ عمروں میں خاصا فرق بھی تو ہے!

ہم ابھی خیالوں ہی میں گم تھے کہ ڈاکٹر کیارا دوبارہ مسکرائیں اور بولیں:

"ڈاکٹر وارثی! کہاں کھو گئے؟ کیا ہوا؟ میں نے تو تمہارا حال پوچھا تھا!"

ہم روہانے ہو کر بولے:

"ہاں۔۔۔ نہیں۔۔۔ ہاں۔۔۔ نہیں۔۔۔"

پھر تھوڑی سی مردانگی جمع کی اور قدرے پُر اعتماد لہجے میں کہا:

"ہاں!"

اور مزید عرض کیا:

"خیال بھی اچھا ہے، حال بھی اچھا ہے، چھٹی بھی ہے۔۔۔"

اور یوں ایک بار پھر ہماری چھٹی ہو گئی!

ابھی جگر کے انزائم بڑھے ہوئے ہیں، اس لیے سمجھ نہیں آ رہا کہ اس چھٹی پر خوش ہوں یا پریشان۔

فرق صرف اتنا ہے کہ سرے کا موسم بہت خوبصورت ہے۔ باہر سیگل بھی ہوں گے۔۔۔ مگر شاید گھر پر رنگین تتلیاں۔۔۔۔۔

شاعر نے شاید ایسے ہی کسی موقع کے لیے کہا تھا:

تجھ سے ملنا خوشی کی بات سی

تجھ سے مل کر اُداس رہتا ہوں

نہایت لطیف ادبی ذوق کے حامل ڈاکٹر خلیق وارثی کا ایک مختصر کالم نیوز لیٹر کے قارئین کے لئے پیش خدمت ہے۔ آپ کی آراء کی روشنی میں اس سلسلے کو باقاعدگی سے جاری رکھا جاسکتا ہے۔ آپکی تجاویز کا انتظار ہے۔

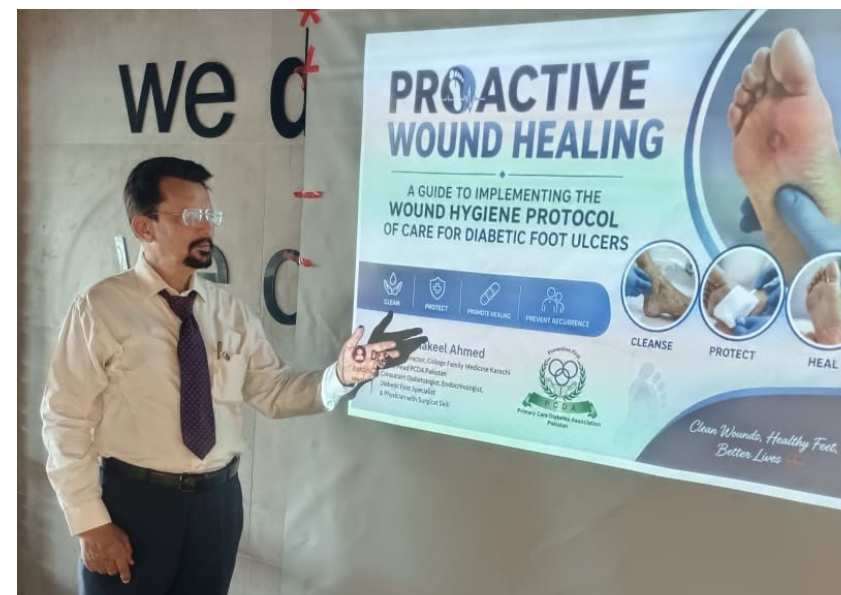
Proactive Wound Healing:

PCDA Leads the Way in Updated Diabetic Foot



Updated Diabetic Foot Ulcer Management Takes Centre Stage at PCDA CME

Primary Care Diabetes Association Pakistan, in collaboration with Convatec Pharma, organized an educational lecture on the updated management of diabetic foot ulcers on 13 August 2026.



The lecture, titled "Proactive Wound Healing," was delivered by Dr. Shakeel Ahmed, Head of Diabetic Foot Ulcers. The session focused on contemporary approaches to diabetic foot-ulcer management, wound healing, and proactive strategies for improving patient outcomes.

Physicians from across Karachi attended the lecture with great interest and actively participated in the session. The enthusiastic response from the participants highlighted the growing need for continued medical education in the field of diabetic foot care.

The attending physicians expressed their interest in having more educational lectures and interactive sessions on diabetic foot ulcers, emphasizing the importance of ongoing professional development and sharing of updated evidence-based practices.

The event was a valuable initiative toward strengthening awareness and improving the management of diabetic foot ulcers among healthcare professionals.



PCDA Women's Forum Podcast Series—Session 2

LIVE ON FACEBOOK | “Diabetic Foot: Prevention Is Better Than Amputation”

Reports: Dr. Hira Sabih Baqai (Head of PCDA Women's Forum)

PCDA Women's Forum successfully conducted the second session of its podcast series, focusing on one of the most important and often overlooked complications of diabetes: the diabetic foot.



The session, titled “Diabetic Foot: Prevention Is Better Than Amputation,” was conducted live on Facebook with Dr. Shakeel Ahmed, who shared valuable clinical insights on diabetic foot complications, early warning signs, risk factors, prevention and the importance of timely medical intervention.

The discussion emphasized that most diabetic foot complications can be prevented through regular foot care, good diabetes control, early detection and prompt treatment. Dr. Shakeel highlighted the importance of patients and healthcare professionals recognizing seemingly minor foot problems before they progress to serious infections, ulcers or amputation.

The interactive session aimed to increase awareness among the general public and healthcare community and reinforced the key message that prevention, education and early intervention are the strongest tools against diabetic foot amputation.

PCDA Women's Forum remains committed to promoting diabetes education, empowering patients and healthcare professionals, and creating awareness about preventable diabetes-related complications through meaningful educational initiatives.

Prevention is better than amputation — and awareness can save a limb.



PFN-Online strongly recommends that readers attend this important webinar, particularly in view of the rising incidence of HIV in the country and the growing need for awareness and up-to-date knowledge on the subject.



APPNA MERIT
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APPNA Academy
of Medicine



HIV for Primary Care Providers in Pakistan

LIVE WEBINAR



By APPNA MERIT HIV Committee



August 23, 2026



11:00 AM US EST | 8 :00 PM Pakistan Time

MODERATOR



Saima Abbas, MD

Infectious Disease Physician
Space Coast Infectious
Disease Care, USA
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**Zoom
Registration**



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After registering, you will receive a confirmation
email containing information about joining the webinar.



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For any questions, please reach out to us at: merit@appna.org

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Prevention First Newsletter-Online

Dear Readers;

Prevention First Newsletter is the official newsletter issued by the Publications Committee of PCDA (Primary Care Diabetes Association Pakistan). The paper version is printed on the occasion of every mega event by PCDA Pakistan.

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