

VOL. 1

EDITION 13

NOV • 2024

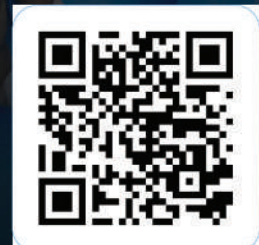
Health pulse

magazine



Essential Insights for

**Effective Diabetes
Management**





HCOWAA: Advancing Healthcare Standards in West Africa

The Health Community of West Africa Association (HCOWAA), based in Ghana, is a non-governmental organization dedicated to advancing healthcare across West Africa. Addressing the uneven distribution of medical resources, HCOWAA advocates for regional cooperation through a Health Alliance that unites healthcare stakeholders to create a cohesive health community. With a mission to improve health outcomes in West Africa, HCOWAA facilitates collaboration, innovation, and research among professionals, leveraging collective resources to enhance healthcare services, policies, and access.

HCOWAA envisions a resilient West African healthcare system where institutions and professionals lead groundbreaking research, foster innovation, and influence policies that elevate regional healthcare. Through initiatives like establishing a regional healthcare database, launching research projects, and hosting policy roundtables, HCOWAA builds strong networks to drive healthcare advancements. Advocacy efforts focus on equitable access, supporting vulnerable populations, and addressing healthcare disparities.

The organization's objectives include fostering research and innovation, supporting health policy reforms, and integrating medical equipment manufacturers with healthcare facilities. HCOWAA

also facilitates training programs, academic exchanges, and research grants, ensuring members are equipped with knowledge and skills to address regional health challenges effectively. Networking events like the HCOWA Medical and Health Industry Investment Summit & Expo connect professionals, offering a platform for partnership and knowledge sharing.

HCOWAA's commitment extends to partnerships with international health organizations and academic institutions, which amplify its impact by introducing global best practices and strengthening West African healthcare infrastructure. Collaborative efforts with international partners promote training, research, and infrastructure upgrades for health facilities, pharmaceutical establishments, and clinics. In addition, HCOWAA's magazine partnerships, including an MoU with Health Pulse Magazine, provide platforms to publish relevant content, share insights, and enhance visibility for ongoing initiatives.

Through these combined efforts, HCOWAA aims to foster a collaborative healthcare environment that not only addresses urgent health challenges but also builds a sustainable, inclusive healthcare future for West Africa.

EXECUTIVE PUBLISHERS

Mr. David Tai
Anna Jiang

EDITOR

Prince Opoku Dogbey

CONTENT MANAGER

Yosua Domedjui

MARKETING MANAGER

Prince Opoku Dogbey

INFORMATION TECHNOLOGY

Prince Kudowor
Godwin Shan Kofi Gilman

BRAND ASSOCIATES

Bismark Kwabena Baiden
Enock Asune

GROWTH AND STRATEGY TEAM

David Tai
Sihong Jiang
Prince Opoku Dogbey

CONTENT DEVELOPERS

Chance Iradukunda
Gloria Addo

DIGITAL MARKETER

Kwabena Poku Antwi

PARTNERS





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Diabetes Awareness:

A Call for Urgent Action

Every November, the world turns its attention to diabetes, a condition that has quietly become a global health crisis. But beyond the statistics and campaigns, one question remains pressing: are we doing enough to combat this epidemic?

Diabetes, often labeled as a "silent killer," is far from silent. It disrupts lives, devastates families, and places an overwhelming strain on healthcare systems. Yet, despite its profound impact, awareness and action remain insufficient. How many of us truly understand the gravity of this condition? How many of us take

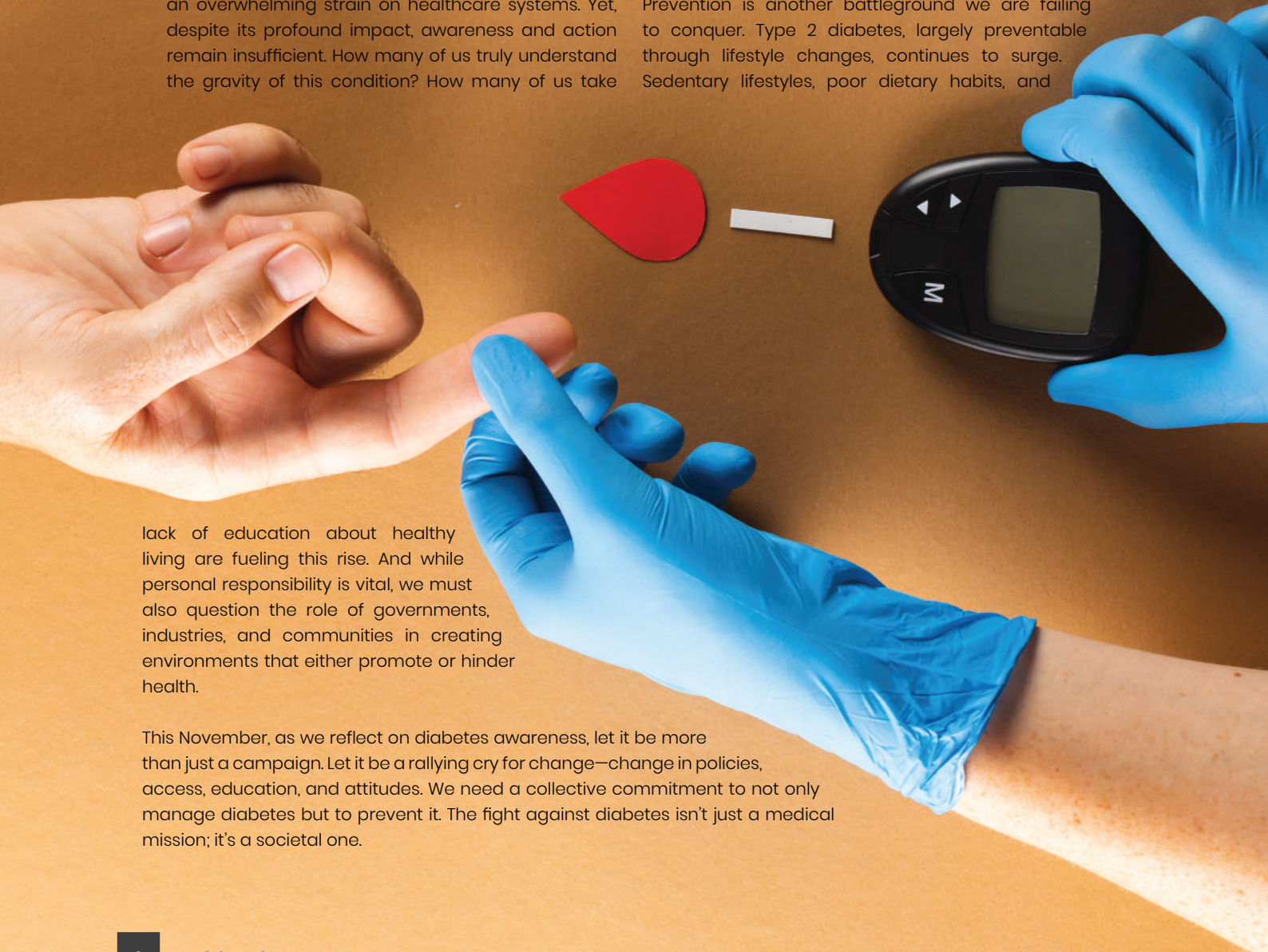
preventive measures seriously or advocate for better healthcare access for those affected?

Millions of people, especially in low-income communities, struggle to access life-saving medications like insulin, let alone regular screenings and education. This isn't just a medical issue, it's a social justice issue. In an era where technology enables rapid advancements, why do basic diabetes management tools remain out of reach for so many?

Prevention is another battleground we are failing to conquer. Type 2 diabetes, largely preventable through lifestyle changes, continues to surge. Sedentary lifestyles, poor dietary habits, and

lack of education about healthy living are fueling this rise. And while personal responsibility is vital, we must also question the role of governments, industries, and communities in creating environments that either promote or hinder health.

This November, as we reflect on diabetes awareness, let it be more than just a campaign. Let it be a rallying cry for change—change in policies, access, education, and attitudes. We need a collective commitment to not only manage diabetes but to prevent it. The fight against diabetes isn't just a medical mission; it's a societal one.




 The Organ

The Pancreas

By Yosua Domedjui,

The pancreas, a unique organ in the digestive and endocrine systems, is crucial for maintaining blood sugar levels and aiding digestion. Located in the abdomen behind the stomach, this mixed gland known as a heterocrine gland has both endocrine and exocrine functions. Approximately 99% of the pancreas is dedicated to exocrine activity, while the remaining 1% serves endocrine roles, supporting a balance of hormones and enzymes essential for various bodily functions.

As an endocrine gland, the pancreas regulates blood glucose by releasing insulin, glucagon, somatostatin, and pancreatic polypeptide. Specialized cells within the pancreatic islets manage these secretions: beta cells release insulin to lower blood glucose when levels are high, while alpha cells release glucagon to increase glucose when

levels are low. Somatostatin, released by delta cells, inhibits both insulin and glucagon, supporting glucose balance (homeostasis) in the blood. Insulin's function extends beyond glucose regulation; it facilitates protein and fat synthesis and is pivotal for cellular glucose uptake, especially in muscle and fat tissues.

The pancreas also plays an essential role in digestion as an exocrine gland. It produces pancreatic juice, a blend of bicarbonate and digestive enzymes that help break down carbohydrates, proteins, and fats. This juice is delivered to the duodenum, the first part of the small intestine, where bicarbonate neutralizes acidic content from the stomach, creating a suitable environment for enzyme activity.

Structurally, the pancreas is divided into sections: the head, neck, body, and tail. The head, located within the curvature

of the duodenum, is connected to major blood vessels, such as the superior mesenteric artery and vein. The neck lies between the head and body, anterior to the portal vein, while the body is the largest part, situated behind the stomach and alongside major vessels like the aorta. This unique positioning allows the pancreas to interact with nearby organs and tissues.

Diseases of the pancreas include pancreatitis, an inflammation often caused by alcohol use or gallstones, and pancreatic cancer, a condition with a poor prognosis due to late detection. The pancreas's endocrine role also connects it to diabetes, a condition that arises from issues with insulin production or function.

HCOWA Association Partners Pharmacy Council to Strengthen

Pharmaceutical Infrastructure and Innovation

By Prince Dogbey

The Health Community of West Africa (HCOWA) Association has entered into a strategic partnership with Ghana's Pharmacy Council to strengthen healthcare and pharmaceutical standards across West Africa.

This partnership, formalized through an MoU signed on November 7, 2024, in Accra, Ghana, aims to advance healthcare delivery by fostering collaboration, knowledge exchange, and joint initiatives. The agreement focuses on areas such as academic exchange, training programs, and research, involving China as a contributing partner to share expertise and resources. Key signatories included Doris Fosu-Hemaa Addae-Afoakwa, Board Chair of the Pharmacy Council, and Dr. Daniel Amaning Danquah, Council Registrar, along with HCOWA's Director, Mr. David Tai, and Marketing Manager, Mr. Prince Dogbey.

The Pharmacy Council, established under Ghana's Health Professions Regulatory Bodies Act (ACT 857), upholds the standards of pharmacy practice to improve public health. Through this partnership, HCOWA, a consortium of healthcare professionals from medicine, pharmaceuticals, and engineering, aims to support the Pharmacy Council's mission by modernizing infrastructure, upgrading pharmaceutical services, and advancing healthcare practices in the region.



One central objective of this partnership is to bolster local healthcare infrastructure. HCOWA will help facilitate the donation of advanced pharmaceutical equipment to local establishments in Ghana and across West Africa. In addition to equipment donations, the partnership will focus on policy advocacy to drive essential reforms in pharmaceutical services, making quality care more accessible. Both organizations are keen on enhancing networking among healthcare professionals, offering events like HCOWA's annual Medical and Health Industry Investment Summit and Expo, which will now feature the Pharmacy Council as a key participant. This annual event provides a platform for healthcare experts to collaborate and exchange innovative ideas that advance the region's healthcare sector.

Both organizations view this collaboration as an essential step toward creating a sustainable and effective healthcare system. By engaging both private and public sector entities, HCOWA and the Pharmacy Council aim to foster an environment where healthcare improvements contribute to regional economic growth and population health. Dr. Danquah expressed optimism about the partnership's potential to improve healthcare quality, while Mr. Tai affirmed HCOWA's commitment to supporting regional pharmaceutical advancements.

WOMEN'S HEALTH

“Gestational Diabetes”:

By Gloria Addo

The Sum of Pregnancy and Blood Sugar

Predominant among the many complications associated with pregnancy—and a key factor in the risk of stillbirth—is Gestational Diabetes (GD or GDM).

Gestational Diabetes is a type of diabetes that develops exclusively during pregnancy when blood sugar levels become elevated (hyperglycemia). It occurs when hormones produced by the placenta interfere with the body's ability to use or produce insulin effectively. Insulin is essential in maintaining balanced glucose levels in the bloodstream, and excess glucose can lead to complications during pregnancy.

High blood sugar levels resulting from gestational diabetes can pose significant risks to both the pregnancy and the baby's health. GD typically manifests in the mid-pregnancy phase, between 24 and 28 weeks. Although the exact causes are not fully understood, certain factors increase the likelihood of developing gestational diabetes, including:

- **Being overweight or obese**
- **Lack of regular physical activity**
- **Having prediabetes**
- **Previous instances of gestational diabetes**
- **Polycystic ovary syndrome (PCOS)**
- **A close family history of diabetes**

Gestational diabetes is primarily a result of hormonal changes that impact the regulation of blood sugar, driven by the body's reduced ability to effectively use insulin, which leads to elevated blood glucose levels.

Steps to Maintain Your Health and Protect Your Baby:

- **Get Screened Early:** Early diagnosis and treatment are crucial in preventing complications for both you and your baby. Act promptly to begin effective management.
- **Develop a Treatment Plan:** Collaborate with your healthcare team to create a personalized treatment strategy. Early intervention can help mitigate health risks.

Managing gestational diabetes typically involves following a balanced, healthy eating plan and incorporating regular physical activity. If dietary changes and physical activity are insufficient to maintain blood glucose within the target range, insulin therapy may be necessary.

By taking proactive steps, you can support a healthy pregnancy and reduce potential risks associated with gestational diabetes.



Insulin Pumps

By Yosua Domedjui,

Insulin pumps have transformed diabetes management, offering a more precise and adaptable approach to insulin therapy compared to traditional injections. These small, portable devices deliver insulin continuously under the skin, supporting patients in maintaining optimal blood glucose levels and reducing long-term diabetes complications.

The device typically consists of three main components: the pump itself, which includes controls and a battery; a disposable insulin reservoir that fits inside the pump; and a disposable infusion set with a cannula inserted under the skin, linked by tubing to deliver insulin continuously. Some newer models even come tubeless for enhanced comfort and discretion.

Since the debut of the first insulin pump, the 60-kg Biostator in 1976, pumps have evolved drastically. They're now compact enough to fit in a pocket or purse and offer advanced features for insulin delivery and blood glucose monitoring. Key improvements include programmable basal rates, which deliver insulin in varying amounts throughout the day, helping to address phenomena such as the dawn effect (early morning blood sugar spikes) without disrupting daily routines.

Insulin pumps are especially beneficial in administering rapid-acting insulin, allowing users freedom from strict meal and exercise schedules. Most pumps also feature a “bolus wizard,” which calculates the ideal insulin dose based on carb intake, current blood sugar levels, and remaining active insulin. The device’s digital history enables users to track insulin usage over time and can even be graphed for analysis on connected software.

Studies show that insulin pump users often report a higher quality of life compared to traditional insulin injection methods. Pumps make it possible to deliver very small and precise insulin doses, which is particularly valuable for young children. They can also improve HbA1c levels, relieve diabetic neuropathy pain, and even enhance sexual function, making them valuable for both type 1 and insulin-dependent type 2 diabetes patients.

The rising popularity of insulin pumps is supported by advancements in blood glucose monitoring, with newer meters requiring minimal blood, making testing less painful. Combined with growing insurance coverage, insulin pumps are becoming a preferred solution for individuals seeking better control over diabetes.





Health Community of West Africa Association (HCOWAA) Partners with the National Diabetes Association of Ghana to Launch Diabetes Awareness Campaign

Yosua Domedjui,

The Health Community of West Africa Association (HCOWAA) collaborated with the National Diabetes Association of Ghana to commemorate this year's Global Diabetes Awareness Day at the Freedom Center in Accra, where a media briefing took place on Monday, November 11, 2024.

Spearheaded by Dr. Elizabeth Esi Denyo, Chairperson of the International Diabetes Federation (IDF) Africa, the event focused on the theme "Bridging Gaps, Breaking Barriers" in the healthcare sector. Its primary aim was to raise awareness about the escalating diabetes crisis in Ghana, while also showcasing the National Diabetes Association's continuous efforts in advancing diabetes management and enhancing health outcomes for individuals affected by the condition.

This year's campaign theme emphasized the need to enhance access to healthcare and eliminate the systemic obstacles hindering

individuals from receiving adequate care. To advance this cause, the National Diabetes Association launched a significant initiative offering free medication to individuals with Type 2 diabetes. This gesture reflects the association's unwavering commitment to improving healthcare accessibility and providing essential support to those affected by the disease.

Dr. Denyo, who also serves as the President of the National Diabetes Association, highlighted the growing threat of diabetes in Ghana. According to the national statistics report for 2023, diabetes has now become the leading cause of death in the country.

In her address, Dr. Denyo urged key stakeholders—such as government

bodies, health organizations, and local communities—to unite in a concerted effort to reduce diabetes prevalence and improve the quality of life for those living with the condition. She called for the adoption of policies that promote healthier lifestyles, including the promotion of balanced diets in schools, encouragement of regular physical activity, and enhanced urban planning. Dr. Denyo also stressed the importance of regulating food sales at local markets to ensure that affordable, nutritious food options are accessible to all Ghanaians.

The event not only served as a critical platform for raising awareness but also emphasized the urgent need for a coordinated response to combat diabetes in Ghana. Through initiatives such as providing free medication for Type 2 diabetes patients and advocating for healthier environments, the National Diabetes Association of Ghana and HCOWAA are taking substantial steps toward better health outcomes and a more supportive future for those affected by the disease.

This partnership marks a pivotal move in addressing the diabetes crisis in Ghana, highlighting the essential role of healthcare collaborations in tackling public health challenges.





How Artificial Intelligence is Shaping the Future of Medicine

By Chance Iradukunda

have demonstrated superior accuracy to radiologists in detecting cancers, such as breast, lung, and skin cancers. For instance, Google Health's AI model has shown higher precision in breast cancer detection than human radiologists. Furthermore, AI enhances the diagnosis of rare diseases by utilizing decision-support systems based on comprehensive patient data, including medical history, symptoms, and laboratory results, leading to more accurate and timely treatments.

2. Personalized Medicine: Customizing Treatments for Individual Needs

AI is redefining personalized medicine by tailoring treatments based on individual genetic makeup, lifestyle, and other relevant factors. AI-powered analytics process vast datasets to predict patient responses to various therapies. In oncology, for example, AI models recommend targeted therapies aligned with specific cancer mutations, improving treatment effectiveness. Additionally, AI's capacity to analyze electronic health records allows for pattern recognition in patient histories, supporting early intervention and enabling more effective preventive measures.

3. Drug Discovery and Development: Accelerating Innovation

AI is expediting drug discovery and development by identifying potential drug candidates with greater speed and precision. It can predict molecular interactions, suggest modifications to enhance drug efficacy, and streamline testing. The COVID-19 pandemic underscored AI's value in drug discovery, with AI models identifying existing drugs that could treat the virus and aiding the development of new treatments for conditions such as Alzheimer's, Parkinson's, and autoimmune diseases. Furthermore, AI refines clinical trial design by analyzing patient data to identify ideal candidates and predict trial outcomes, significantly improving the overall efficiency of the drug development process.

Artificial intelligence (AI) is profoundly transforming the field of medicine, revolutionizing areas from patient care to drug discovery. With its capacity to process vast amounts of data at unprecedented speed, AI empowers doctors, researchers, and healthcare organizations to deliver more accurate diagnoses, personalize treatments, and enhance operational efficiency. As the field advances, AI's potential to redefine the future of healthcare appears boundless.

1. AI-Powered Diagnostics: Enhancing Precision and Speed

AI is revolutionizing diagnostics by enabling tools that greatly enhance accuracy and efficiency. Machine learning algorithms analyze medical images—such as X-rays, CT scans, and MRIs—faster and more accurately than human interpretation. AI models have been developed to detect early signs of diseases like cancer, cardiovascular conditions, and neurological disorders, sometimes identifying potential issues even before symptoms manifest.

In specific cases, AI-driven diagnostic tools





Microwaving Food Kills Nutrients

By Chance Iradukunda

Microwaving food is often surrounded by misconceptions, with one of the most prevalent being that it "destroys nutrients." Many believe that using a microwave oven to heat food results in the loss of vitamins and minerals, ultimately diminishing its nutritional value.

To better understand this, it's important to know how microwave ovens work. Microwaves utilize radio waves (a form of electromagnetic radiation) to generate heat. When these waves interact with food, they cause water molecules in the food to vibrate, creating friction that heats the food from the inside out. This method of heating is significantly faster than conventional cooking methods, which is one reason microwaves are so popular for reheating meals or cooking quickly.

The claim that microwaving destroys nutrients is somewhat misleading. The reality is that all cooking methods can cause some nutrient loss, but microwaving does not necessarily result in more nutrient depletion than other methods. In fact, because microwave cooking is usually quicker and uses less water, it may actually preserve nutrients better than techniques like boiling or deep-frying.

To maximize the nutritional value of microwave-cooked food, use minimal water, create steam to cook the food evenly, and cover it with microwave-safe lids or plastic wraps. Avoid using non-microwave-safe plastic wraps, as these may release harmful chemicals when heated. This ensures efficient cooking while retaining moisture, which helps preserve water-soluble vitamins. It is crucial to use only microwave-safe wraps to prevent any adverse effects.

Another important practice is to avoid overcooking food. Microwaving food for too long can cause the breakdown of nutrients, particularly in delicate

vegetables or proteins. To prevent this, check your food regularly and stir or rotate it midway through cooking to ensure even heating. If necessary, use lower power settings to apply a gentler heat that cooks the food thoroughly without overdoing it. Finally, allow your food to sit for a minute or two after microwaving; this allows the heat to distribute more evenly throughout the dish. By following these guidelines, you can preserve both the nutritional value and flavor of your microwave-cooked meals.





The Africa CDC reports a small slowdown in the virus's spread throughout Africa.

By Chance Iradukunda

The African Centre for Disease Control and Prevention (Africa CDC), an independent continental health agency under the African Union, released its latest update on November 7, 2024, cautioning that although the Mpox virus's spread rate shows a slight decline, the epidemic continues to advance across the continent.

The African continent is witnessing a modest slowdown in the Mpox outbreak, with the Africa CDC reporting the most recent figures. According to the autonomous health agency, 11,450 new cases were reported in the past four weeks, down from 12,800 in the preceding four-week period. Director General of the Africa CDC, Jean Kaseya, warned that while this decline may signal a temporary lull, the virus remains in active spread. "When we held our initial briefing to alert the global community about Mpox in April, we reported 300 fatalities and cases in six countries. By August, fatalities had doubled to 600, with 23,000 cases across 13 nations. Now, we're seeing

over double those cases, with more than 1,083 deaths and 19 nations impacted."

The Democratic Republic of Congo (DRC) bears the brunt of the outbreak, accounting for 80% of all cases on the continent. Despite launching a vaccination campaign in the DRC a month ago, only around 51,000 people out of a population exceeding 100 million have received the vaccine.

This week, through an equitable distribution initiative aimed at ensuring fair and timely vaccine access, over 900,000 vaccine doses were allocated to the nine African countries most severely affected by the outbreak. This initial allocation is part of a larger distribution plan, with nearly six million doses expected to be available by year's end.

Previously known as "monkeypox," Mpox is a zoonotic disease that can infect both humans and animals. Symptoms include fever, muscle aches, and skin lesions.





Diabetes is a growing health concern worldwide, affecting millions of people across age groups. Simply put, diabetes occurs when the body is unable to effectively use glucose, the final product of carbohydrate metabolism. This inability to manage glucose leads to various complications and requires lifelong management.

Types of Diabetes

There are three main types of diabetes, each with unique causes and characteristics:

1. Type 1 Diabetes:

This is an autoimmune condition where the body mistakenly attacks insulin-producing cells in the pancreas. The exact cause remains unknown, but it is often diagnosed early in life. Although rare, Type 1 diabetes can be diagnosed in infants, with some cases in Ghana seen in children as young as four months.

2. Type 2 Diabetes:

This type accounts for roughly 90% of all diabetes cases worldwide. Type 2 diabetes is commonly linked to lifestyle factors, such as obesity, poor diet, lack of exercise, and a sedentary lifestyle. Unlike Type 1, Type 2 diabetes is often preventable by adopting healthier habits, but once developed, it requires consistent management.

3. Gestational Diabetes:

Occurring during pregnancy, gestational diabetes is due to hormonal changes that make it difficult for the body to manage blood sugar levels. Women diagnosed with gestational diabetes are

Mrs. Elizabeth Esi Denyo

Chairperson of the International Diabetes Federation (IDF) Africa

Understanding Diabetes:

Types, Causes, and Effective Management

more likely to develop Type 2 diabetes later in life.

Factors Leading to Diabetes

While Type 1 diabetes is largely a natural occurrence with no pinpointed cause, Type 2 and gestational diabetes are influenced by lifestyle choices and conditions. Obesity, poor diet, and lack of exercise significantly increase the risk of developing Type 2 diabetes, highlighting the need for health education on diet and exercise.

Diabetes Management and Treatment

Diabetes, once diagnosed, cannot be eliminated. Instead, effective management is crucial to living a healthy life with the condition. Mrs. Elizabeth emphasizes four essential pillars of diabetes management:

1. Medication Compliance:

It's vital for individuals with diabetes to take their prescribed medications regularly.

2. Regular Health Checks:

Routine visits to healthcare providers allow for early detection of complications and necessary assessments to ensure effective management.

3. Healthy Diet:

Individuals with diabetes should make informed dietary choices, avoiding foods without known benefits. A balanced diet supports stable blood glucose levels and overall well-being.

4. Exercise:

Physical activity plays an essential role in diabetes management. Regular exercise helps control blood glucose levels, aids in weight management, and improves overall health.

These four pillars offer a solid foundation for managing diabetes effectively. In fact, Mrs. Elizabeth, herself a diabetes patient for 49 years, demonstrates that with proper management, individuals with diabetes can lead a full life.

Addressing Misconceptions

Diabetes is often misunderstood. Some people believe it can be "cured" through spiritual intervention alone. However, medical research shows that diabetes requires a continuous, balanced approach to management, involving medication, lifestyle changes, and routine care. Mismanagement due to such misconceptions can lead to severe complications or even death. As Mrs. Elizabeth highlights, diabetes is not a communicable disease; it cannot be transmitted from person to person. Still, lifestyle choices and genetic predispositions may increase susceptibility.

National Efforts and Policy Initiatives

In Ghana, the National Diabetes Association, part of the International Diabetes Federation, leads efforts in diabetes education and support. Mrs. Elizabeth, who chairs the Africa Region of the federation, advocates for policies that support diabetes patients, including specialized care zones in hospitals and health-oriented leadership. The National Diabetes Association has also partnered with organizations like Life for a Child, providing essential supplies for diabetic children, such as insulin, glucometers, and test strips.

Diabetes is not a life sentence. Learning about diabetes and adhering to management guidelines can enable individuals to lead healthy, fulfilling lives. With support from healthcare providers, community organizations, and public policies, those affected can navigate diabetes with confidence.



Argyria Explained:

The Long-Term Health Consequences of Silver Exposure

By Chance Iradukunda

Argyria is a rare medical condition that causes a bluish-gray discoloration of the skin, eyes, and even internal organs due to extended exposure to silver or silver compounds. Commonly associated with colloidal silver—used as a supplement or in alternative medicine—this condition results from the gradual accumulation of silver particles in skin and tissues, leading to irreversible pigmentation. Although not life-threatening, the cosmetic and psychological impacts can be profound.

Causes of Argyria

Argyria develops from the prolonged buildup of silver particles in the body, often due to extensive exposure to silver-containing compounds. This can occur through ingestion, inhalation, or skin absorption, often resulting from excessive use of silver-based supplements, medications, or industrial exposure. While non-toxic, the condition is irreversible, with noticeable discoloration in sun-exposed areas.

Symptoms of Argyria

Argyria manifests as a gradual bluish-gray skin discoloration, particularly in areas exposed to sunlight, as silver particles accumulate in the skin and tissues. In severe cases, this pigmentation can extend to mucous membranes. Although it causes no physical pain or systemic symptoms, the discoloration is typically permanent.



Rarely, argyria may impact internal organs, potentially leading to more serious health complications.

Treatment of Argyria

Argyria, the discoloration resulting from silver accumulation in the body, has no definitive cure or treatment. The condition is generally permanent, marked by a distinct bluish-gray pigmentation. Treatment approaches focus on limiting further silver exposure and, in some cases, managing symptoms. Laser therapy has shown some promise in reducing pigmentation intensity, though outcomes vary. Early medical intervention to halt further silver deposition and supportive care for those with silver toxicity affecting organs like the liver or kidneys may be beneficial.

Prevention of Argyria

Preventing argyria involves minimizing exposure to silver, especially through prolonged or excessive use of silver-based products. Individuals should avoid ingesting silver unless specifically prescribed by a healthcare provider, use protective gear when handling silver, and adhere to workplace safety guidelines. Caution is advised with over-the-counter silver-based remedies, as indiscriminate use may increase the risk of developing argyria.



Diabetes

By Gloria Addo

Did you know that diabetes ranks among the top 10 leading causes of death globally, claiming over 6.7 million lives annually?



Diabetes is a condition characterized by elevated blood sugar (glucose) levels. It arises when the pancreas fails to produce enough insulin or when the body becomes resistant to insulin's effects.

This disease affects individuals of all ages. The risk of developing diabetes without a family history is approximately 0.4%. However, if your biological mother has Type 1 diabetes, your risk increases to 1% to 4%, and if your biological father has the condition, your risk ranges from 3% to 8%. If both of your biological parents have Type 1 diabetes, your risk of developing the disease can be as high as 30%.

Common symptoms of diabetes include fatigue, weakness, slow-healing sores, being overweight or obese, and frequent urination. Fortunately, these symptoms and underlying causes can be managed and controlled through regular blood sugar screening, a balanced diet, regular exercise, and avoiding smoking.

There are three main types of diabetes: Type 1, Type 2, and gestational diabetes (which occurs during pregnancy). Type 1 diabetes occurs when the body's immune system attacks and destroys the insulin-producing cells of the pancreas. Type 2 diabetes arises from persistently elevated blood sugar levels (hyperglycemia), and gestational diabetes affects how the body uses sugar (glucose) during pregnancy.

While most forms of diabetes are chronic, they can be effectively managed with lifestyle changes, medication, and consistent blood sugar monitoring to maintain healthy glucose levels. However, if management lapses, blood sugar levels can rise, significantly diminishing the likelihood of favorable outcomes and reducing survival chances.



Pulse Oximeters

By Gloria Addo

The pulse oximeter, or Pulse Ox, is an electronic device that measures the saturation of oxygen carried in your red blood cells. Pulse oximeters are a small, clip-like device that can be attached to your fingers, forehead, nose, foot, ears, or toes.

The purpose is to see if your blood is well oxygenated. It can rapidly detect even small changes in oxygen levels. These levels show how efficiently blood is carrying oxygen to the extremities furthest from your heart, including your arms and legs.

Medical professionals may use pulse oximeters to monitor the health of people with conditions that affect blood oxygen levels, especially while they're in the hospital. Certain health conditions require people to monitor their oxygen saturation levels. People on supplemental oxygen therapy are likely candidates for home pulse oximeters, as are people with asthma, blood clots, COPD, a history of heart attack, heart disease, or a history of heart failure.

A pulse oximeter may be useful in both inpatient and outpatient settings. Sometimes, your doctor may recommend that you have a pulse oximeter for home use.

To take a reading with a pulse oximeter, you will:

- Remove any jewelry or fingernail polish on your finger if measuring from this location.
- Make sure your hand is warm, relaxed, and below heart level if attaching the device here.
- Place the device on your finger, earlobe, or toe.
- Keep the device on for as long as needed to monitor your pulse and oxygen saturation.
- Remove the device once the test is over.

In pulse oximetry, small beams of light pass through the blood in your finger, measuring the amount of oxygen. According to the British Lung Foundation, pulse oximeters measure changes in light absorption in oxygenated or deoxygenated blood, as well as oxygen saturation levels and heart rate.

Pulse oximetry is a quick, noninvasive, and completely painless test. It comes with no risks, aside from potential skin irritation from the adhesive used in some types of probes.



 Recipe Hack

Citrus and Avocado

By Chance Iradukunda

Smoothie with Honey

The Citrus and Avocado Smoothie with Honey is a nutritious and delicious option for diabetes management. It contains avocados, fiber, and honey, which help maintain steady blood sugar levels and regulate digestion. Honey's lower glycemic index makes it a healthy choice.

This smoothie is a nutritious and blood sugar-controlling option, containing vitamin C from citrus fruits, healthy fats from avocado, and fiber. These ingredients work together to support digestion, heart health, and long-term diabetes management, reducing oxidative stress and promoting insulin sensitivity, thereby enhancing overall health.

Here are the recipes of Citrus and Avocado Smoothie with Honey

A refreshing smoothie that combines the creamy texture of avocado with the tanginess of citrus, making it both hydrating and nutrient-packed.

Ingredients:

- 1/2 avocado
- 1/2 orange, peeled and segmented
- 1 tablespoon honey
- 1/2 cup unsweetened coconut milk or almond milk
- 1/4 cup water
- Ice cubes (optional)
- 1 tablespoon flaxseeds (optional)

Instructions:

1. Place all ingredients in a blender.
2. Blend until smooth, adding more water or coconut milk if needed.
3. Serve chilled with ice cubes.

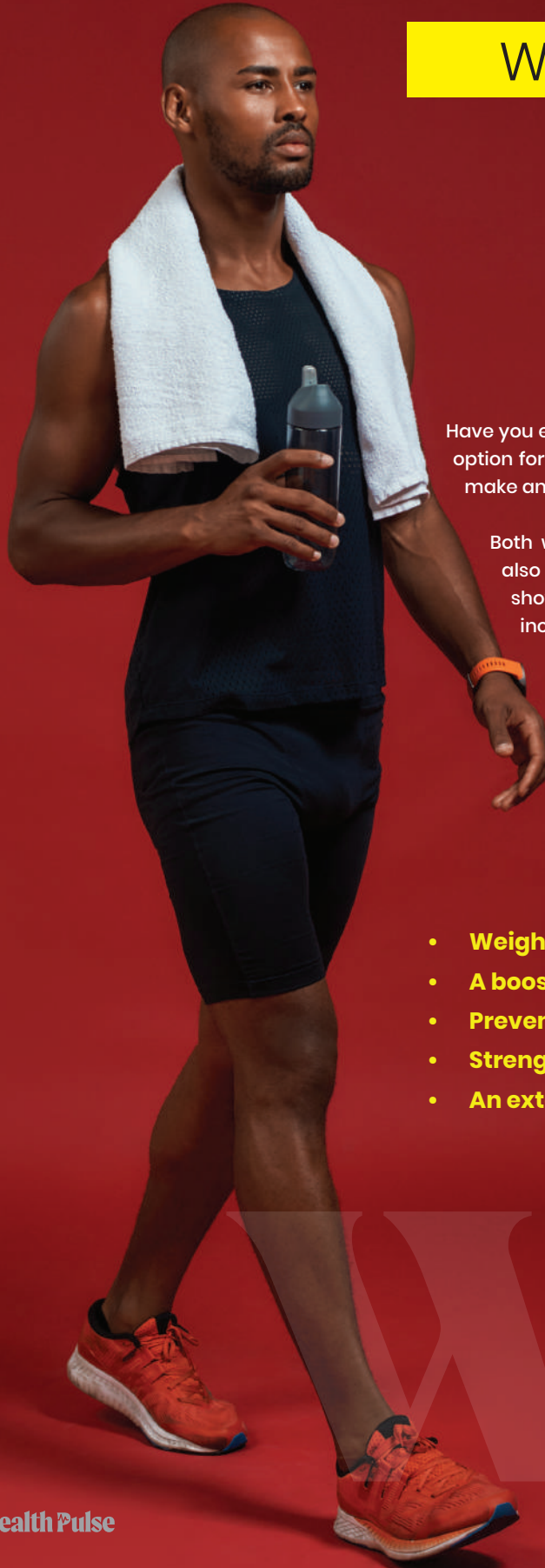




To Walk or Run:

Which is Better?

By Gloria Addo



Have you ever wondered whether walking or running is the best option for starting a fitness routine? Here's a guide to help you make an informed decision.

Both walking and running are forms of aerobic exercise, also known as cardiovascular or cardio exercise. Research shows that both activities offer several health benefits, including:

- **Weight loss or maintenance of a healthy weight**
- **A boost to the immune system**
- **Prevention or management of chronic conditions**
- **Strengthening of the heart**
- **An extended lifespan**

Walk

Run

In addition to physical benefits, cardiovascular exercise is also beneficial for mental health. One study found that both running and walking can help reduce anxiety and depression while also improving mood and self-esteem. Another study revealed that just 10 minutes of running at a moderate intensity can enhance participants' moods afterward, demonstrating that you don't have to run for long periods to experience these benefits.

While walking provides many similar benefits to running, it's important to note that running generally burns about double the calories that walking does. Since you need to burn approximately 3,500 calories to lose one pound, running may be a better choice if your primary goal is weight loss.

However, if you're new to exercise or cannot run, walking remains an excellent way to get in shape. It is accessible for nearly all fitness levels and can improve heart health and overall energy levels. Both walking and running are effective forms of cardiovascular exercise. Health experts recommend engaging in at least 150 minutes of moderate-intensity physical activity each

week for optimal health.

If you're new to exercise and looking to improve your fitness, walking is a smart choice. But if you wish to lose weight or burn calories more quickly, consider incorporating running into your routine. If you're just starting to run, it may be helpful to follow a program that alternates between walking and running. Always consult with your doctor or a fitness instructor before beginning any new exercise regimen.





The Role of Environmental Factors in the Development of Allergies

By Yosua Domedjui,

Environmental factors play a significant role in the development and exacerbation of allergies, particularly seasonal ones. Among the most extensively studied environmental allergens are airborne substances such as dust mites, pollens, fungi, and animal dander. These allergens can trigger allergic reactions, including respiratory and cutaneous symptoms, through an immune system response mediated by immunoglobulin E (IgE). Environmental exposure to these allergens is a major contributor to the prevalence and severity of allergic conditions, with seasonal allergies becoming an increasingly common public health problem.

A recent study conducted among 100 individuals suffering from seasonal allergies highlights the impact of environmental factors in the progression of allergic reactions. The findings reveal that seasonal allergies are particularly prevalent during the spring season and are commonly associated with symptoms of rhinoconjunctivitis. Pollen,

in particular, emerged as the primary allergen, influenced by genetic factors, environmental conditions, and notably, climate change. Rising temperatures and altered weather patterns have been shown to increase pollen production and extend the pollen season, aggravating the allergy burden for many individuals.

The study underscores the importance of monitoring these environmental factors, as they directly affect the severity and frequency of allergy symptoms. Alongside environmental allergens, food-related reactions, both IgE-mediated and non-immunological,

also contribute to the overall allergic disease burden.

In conclusion, the increasing prevalence of allergies, exacerbated by environmental changes, demands proactive measures in both prevention and treatment. Healthcare professionals must consider the interplay of genetic, environmental, and climate factors to better diagnose, manage, and improve the quality of life for allergy sufferers. Understanding these connections will be key to addressing the growing allergy epidemic globally.

References

Vol. 5 (2025): Salud, Ciencia y Tecnología



The Science of Sleep:

Why Prioritizing Rest Transforms Family Health

By Yosua Domedjui,

Sleep is not just about rest; it's a cornerstone of physical and mental well-being, especially for developing children. Numerous studies emphasize that inadequate sleep disrupts cognitive function, emotional regulation, and overall health. Dr. Mary Carskadon, a renowned sleep researcher, notes that "sleep is a critical biological function that supports almost every aspect of a child's development," affecting their ability to learn, focus, and engage.

Most parents and children alike face a mounting "sleep debt," a concept in sleep science referring to the cumulative effect of missed hours of rest. According to the National Sleep Foundation, school-aged children should be getting 9–11 hours per night, while teens need 8–10 hours. Yet, studies show that many get significantly less. When children don't meet these requirements, they risk more than fatigue; chronic sleep debt is associated with increased risks for obesity, type 2 diabetes, depression, hypertension, and even heart disease. "Sleep isn't a luxury—it's a necessity for mental and physical resilience," explains Dr. Charles Czeisler, professor of sleep medicine at Harvard Medical School.

Incorporating healthy sleep habits into a busy family routine can be challenging but essential. Here are evidence-based strategies that can make a difference:

1. Establish a Routine: Neuroscientific research indicates that a consistent bedtime routine can help regulate the body's circadian rhythm, the internal clock that governs sleep-wake cycles. Set a regular bedtime for everyone and stick to it—even on weekends.

2. Limit Screen Time Before Bed: Exposure to blue light from screens impedes the production of melatonin, the hormone that signals sleepiness. Dr. Richard Rosen, a sleep specialist, suggests limiting device use one hour before bed to support better sleep. Apps like Parental Time Lock can help regulate screen time.

3. Create a Sleep-Conducive Environment: According to the CDC, a quiet, dark, and cool room supports deep sleep. Simple changes, like dimming lights and reducing noise, help everyone unwind and settle down for the night.

4. Model Good Sleep Habits: Children often mimic parental behaviors. When parents prioritize rest, children are more likely to follow. Set an example by following the same sleep guidelines you establish for them.

The long-term benefits of prioritizing sleep are profound, not only enhancing your family's daily well-being but also laying the foundation for healthier lives. As Dr. Walker, author of *Why We Sleep*, emphasizes, "The shorter your sleep, the shorter your life." Transform sleep from a chore into a treasured family priority, nurturing everyone's health and creating a more harmonious home.





What is Epididymitis?

Gloria Addo

Epididymitis is inflammation in the sperm-carrying tube at the back of your testicle. The swelling can cause intense pain in or around your testicle and scrotum. It can develop at all ages but is most common in young men ages 19 to 35. It usually occurs due to a bacterial infection or a sexually transmitted infection (STI).

Infection often begins in the urethra, the prostate, or the bladder. Gonorrhea and chlamydia infections are most often the cause of the problem in young heterosexual men. In children and older men, it is more commonly caused by E coli and similar bacteria. This is also true in men who have sex with men.

Epididymitis may begin with a feeling of heaviness in the testicle area, low fever and chills. The testicle area also gets more sensitive to pressure. It will become painful as the condition progresses. An infection in the epididymis can easily spread to the testicle.

While epididymitis can be painful, it usually doesn't cause any long-term problems, especially with early treatment. Epididymitis most often gets better with antibiotic treatment. Healthcare providers will also give you advice on how to relieve discomfort at home. There are no long-term sexual or reproductive problems in most cases. However, the condition may return.

Discomfort or pain in or around your testicles might not be something that's easy to talk about. But even though it might be embarrassing, it's important to get it checked out by a healthcare provider. They'll do their best to make your visit as stress-free as possible. Remember to take all medications exactly as they prescribe and to follow their recommendations to ensure a successful recovery.

Proactive Lifestyle Strategies for Diabetes Prevention and Long-Term Health

Yosua Domedjui,

Meet Your Doctor Regularly



Monitor Your Blood Sugar Levels



5 STEPS TO MANAGING DIABETES

Take Your Medications on Time



Manage Your Diet



Do Regular Exercise



Preventing type 2 diabetes—a metabolic condition marked by elevated blood glucose—requires a thoughtful, proactive approach to lifestyle, targeting diet, physical activity, and sustainable weight management. Diabetes is a serious condition that often progresses slowly but has long-term impacts on heart health, blood vessels, kidneys, and nerves if left unchecked. Approximately 422 million people live with diabetes, a number that's steadily increasing, especially in low- and middle-income countries.

One of the most effective measures in diabetes prevention is weight management. Research highlights that even a modest 7-10% reduction in body weight can significantly reduce the likelihood of developing diabetes. This involves balancing caloric intake with physical activity and prioritizing nutrient-rich, whole foods over processed options. Regular consultations with healthcare providers can help set realistic weight-loss goals, such as aiming for a weekly weight loss of 1-2 pounds, which can mitigate

diabetes risk and improve metabolic health.

Exercise also plays a vital role in glucose regulation and insulin sensitivity, the hormone essential for blood sugar control. Aim to incorporate at least 150 minutes of moderate aerobic exercise each week—like walking briskly, cycling, or swimming—while including resistance training several times weekly. Studies reveal that both forms of exercise lower blood sugar levels, promote muscle glucose uptake, and improve insulin's effectiveness. Additionally, staying active throughout the day, breaking long periods of sitting with brief standing or light movement, can benefit blood sugar control.

A plant-focused, high-fiber diet supports blood sugar stability and overall wellness. Fiber-rich foods, including fruits, leafy greens, beans, and whole grains, slow sugar absorption and promote satiety, helping control weight and reducing glucose spikes. Fiber's impact extends to heart health, lowering cholesterol

and helping control blood pressure and inflammation. Opt for whole grains over refined options, and minimize consumption of added sugars and high-fructose corn syrup, which can lead to rapid glucose increases and contribute to insulin resistance.

Healthy fats—such as those found in olive oil, nuts, seeds, and fatty fish—support cardiovascular health without the harmful effects of saturated fats commonly found in dairy and meats. These "good fats" can be a valuable component of a diabetes-preventive diet when used in moderation.

Lastly, consistency is key: prioritizing lasting dietary habits over temporary fad diets can facilitate sustainable lifestyle changes. Creating balanced meals, where half of the plate is non-starchy vegetables and fruits, a quarter is whole grains, and the final quarter is protein, encourages a nutritious intake that supports glucose control. Regular screenings, especially for individuals with risk factors, enable early detection and management, empowering individuals to take control of their health before the onset of diabetes.



Living With Chronic Diseases

By Gloria Addo

When you have an acute illness such as malaria or a cold, you know you'll feel better and be back to normal within a short period. This isn't true with a chronic illness. It may never go away and can disrupt your life in several ways, including your mental well-being.

An estimated one-third of people diagnosed with a serious, life-changing chronic illness or disease will experience symptoms of depression. After the diagnosis of a serious illness, feelings of sadness and despair are normal. But if depression persists, treatment—including medications and therapy—may be needed.

A chronic disease is a condition that lasts at least one year and requires

ongoing medical attention or limits activities of daily living or both. Examples of chronic diseases include autoimmune diseases, diabetes, cancer, epilepsy, heart disease, HIV/AIDS, hypothyroidism, multiple sclerosis, and pain.

People who have chronic illnesses must adjust to both the illness and its treatment. The illness may affect a person's mobility (ability to move) and independence and change the way they live, see themselves, and/or relate to others. These changes can be stressful and cause a certain amount of despair or sadness, which is normal.

In some cases, having a chronic illness can trigger what's known as clinically significant depression, itself a potentially serious but treatable illness. Depression caused by chronic illness can aggravate the illness, causing a vicious cycle to develop. Depression is especially likely to occur when the illness causes pain, disability, or social isolation. Depression in turn can intensify pain, fatigue, and the self-doubt that can lead the person to avoid other people.

Early diagnosis and treatment for depression can reduce distress, as well as any risk of suicide. People with a chronic medical condition who get treatment for co-existing depression often have an improvement in their overall medical condition, achieve a better quality of life, and find it easier to follow their treatment plan.

THROAT CANCER: A Quiet Menace You Can't Ignore

By Adiza Ibrahim

Throat cancer is a broad term that refers to cancer affecting one or more parts of the throat. Typically, individuals diagnosed with throat cancer have it in their larynx (voice box) or oropharynx (the middle part of their throat).

There are several types of throat cancer, with the two most common being laryngeal cancer and oropharyngeal cancer. Laryngeal cancer affects the larynx and occurs more frequently in men than in women. Oropharyngeal cancer affects the area of the throat located just behind the mouth and primarily impacts individuals aged 55 and older, with an average age of diagnosis around 63.

Some common symptoms of throat cancer include:

- **A sore throat lasting more than two weeks**
- **Pain or difficulty swallowing (dysphagia)**

Experiencing these symptoms does not necessarily mean that you have throat cancer, as they may also indicate other less serious conditions. However, if you have a symptom that persists for two weeks or longer, it's essential to consult your healthcare provider.

Causes of laryngeal cancer include:

- **Smoking tobacco**
- **Regularly consuming large amounts of alcohol**

Approximately 70% of all oropharyngeal cancers are linked to the Human papillomavirus (HPV). Health professionals differentiate between HPV-related and HPV-negative oropharyngeal cancers.

To reduce the risk of throat cancer, it is advisable to:

- **Avoid smoking cigarettes or using any tobacco products**
- **Drink alcohol in moderation or refrain from drinking altogether**
- **Get vaccinated against HPV and take steps to avoid HPV infections**
- **Develop healthy eating habits**

Healthcare providers may recommend various treatment options for the most common forms of throat cancer. If you smoke or use tobacco, they may advise you to quit before undergoing treatments such as surgery, chemotherapy, or radiation to enhance the effectiveness of your treatment.



Is Honey Safe for People with Diabetes?

Honey has long been praised for its natural sweetness and potential health benefits, including its antioxidant and antimicrobial properties. However, for people with diabetes, the question of whether honey is safe to consume can be a concern. Since honey is a form of sugar, it has the potential to affect blood glucose levels, which is crucial to managing diabetes.

What Is Honey and How Does It Affect Blood Sugar?

Honey, a natural product made from flower nectar, contains glucose, fructose, vitamins, minerals, and antioxidants. It's a healthier alternative to refined sugar but has high sugar content. Honey's glycemic index (GI) ranges from 45 to 64, and it can raise blood sugar levels but not as dramatically as refined sugar or glucose. It should be used cautiously by diabetics due to its calorie and sugar content.

Is Honey Safe for People with Diabetes?

Honey can be safely consumed by people with diabetes in moderation due to its moderate glycemic index and beneficial properties like antioxidants and anti-inflammatory compounds.

However, even though honey is often marketed as a "natural" sweetener, it still

counts as sugar. Consuming it in excess can lead to weight gain and poor blood sugar control, both of which are concerns for people with diabetes.

Honey, when consumed in moderation, can offer health benefits for people with diabetes due to its antioxidant content, which helps combat oxidative stress and inflammation. However, it's essential to monitor portion sizes and integrate honey into a balanced diet, ideally with fiber or protein.

How to Incorporate Honey into a Diabetes-Friendly Diet

To maintain healthy blood sugar control in diabetes patients, it's important to consume honey in small amounts, such as 1 teaspoon, with 5-7 grams of sugar. Pair honey with fiber or protein to slow sugar absorption. Monitor blood sugar levels regularly to ensure the body responds. Opt for raw or unfiltered honey for antioxidants and enzymes. Avoid honey in processed foods, as they often contain excessive amounts of sugars that can quickly raise blood sugar levels. Always read ingredient labels when using honey.

Yes



Medical Jargons You Need to Know

METABOLISM- The chemical reactions in the body's cells that change food into energy. During this process, calories in food and drinks mix with oxygen to make the energy the body needs.

ANTIOXIDANTS- These are man-made or natural substances that may prevent or delay some types of cell damage. It reduces the damage caused by oxidation.

CARDIOVASCULAR- This refers to the heart (cardio) and the blood vessels (vascular). It carries nutrients and oxygen to the body's tissues and removes carbon dioxide and other wastes from them.

CORTISOL- This is a steroid hormone that is produced by your 2 adrenal glands, which sit on top of each kidney. Increase the availability of blood glucose to the brain.

TUMOR- An abnormal mass of tissue that forms when cells grow and divide more than they should or do not die when they should.

OSTEROPOROSIS- A medical condition in which the bones become brittle and fragile from tissue loss, typically due to hormonal changes, or deficiency of calcium or vitamin D.



640509 040147



    Hcowaghana

info@hcowaa.com | www.hcowaa.com