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Hope and Resilience:

Stories of Triumph Over
Breast Cancer





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.

HCOWA 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, HCOWA 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. HCOWA

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

Pavel Chamabe
Chance Iradukunda
Gloria Addo

DIGITAL MARKETER

Kwabena Poku Antwi

PARTNERS





Contents

| | |
|-----------------------|---------|
| Editorial | 2 |
| The Organ | 3 |
| Special Report | 4 |
| Women's Health | 5 |
| Health and Technology | 6 - 7 |
| Health News | 8 |
| Article | 9 |
| Health Myth Buster | 10 |
| Africa In Focus | 11 |
| Article | 12 - 13 |
| Skincare Health | 14 |
| Disease In Focus | 15 |
| Health & Technology | 16 |
| Healthy Hack | 17 |
| Fitness and Exercise | 18 - 19 |
| Health & Wellness | 20 |
| Family Health | 21 |
| Men's Health | 22 - 23 |
| Article | 24 |
| Healthy Living | 25 |
| Article | 26 - 27 |
| Ask the Expert | 28 |
| Health Terms | 29 |



Why Are So Many Young Adults Getting Cancer?

Cancer has long been a major health challenge, but recent data shows a disturbing trend: an increasing number of young adults under 50 are being diagnosed with various types of cancer. In 2024 alone, it is estimated that there will be over 2 million new cases in the United States, with approximately 61,720 related deaths, according to the National Cancer Institute (NCI). Among these cases, a troubling rise in early-onset cancers—those diagnosed in younger people—has researchers scrambling to uncover causes and potential solutions.

Why?

One obvious factor driving cancer rates is a lifestyle marked by obesity, processed foods, and sedentary habits, particularly prevalent in the U.S. Dr. Goldfarb explains, “Obesity causes inflammation, which can lead to cancer.” However, this explanation only partly addresses the growing rates, such as those of young women with breast cancer or the cases observed at Memorial Sloan Kettering Cancer Center (MSK)’s Center for Young Onset Colorectal and Gastrointestinal Cancer. Dr. Robin Mendelsohn, co-director at MSK, suggests that “there isn’t a single smoking gun,” but rather, a set of interconnected factors.

Dr. Marcia Cercek of MSK speculates on a deeper issue: environmental exposure. She notes, “The hypothesis is that environmental exposures affecting people born in the 1950s onward may play a role.” Possible triggers from the 1960s and 70s—such as exposure to pollutants, dietary changes, and increased antibiotic use—could be compounding over generations.

Researchers at MSK are also studying another possible factor: the microbiome. Known as the “invisible organ,” the microbiome is a diverse community of bacteria in our digestive system that plays a vital role in maintaining health. Dr. Mendelsohn presented findings showing that young adults with colorectal cancer had less microbial diversity compared to older patients, which can negatively impact health. This led MSK researchers to investigate the microbiome’s interactions with lifestyle factors, including diet, medications, and even early childhood influences like breastfeeding and birth delivery methods.

With so many possible contributing factors, it’s likely that several overlapping elements are at work. Yet researchers remain hopeful. As Dr. Mendelsohn explains, “Our goal is to find a possible trigger that would explain why the microbiomes of these patients are different.” Uncovering this could lead to targeted prevention measures, potentially reversing this troubling trend affecting young adults worldwide.

Beyond Aesthetics:

By Gloria Addo

The breast is a glandular organ located in the chest area of both men and women, though it plays a much more active role in women. Composed of mammary glands, ducts, lobules, fat, and connective tissue, the breast is responsible for producing milk to nourish babies in women. Men, although they also have breasts, do not have functional mammary glands for milk production.

Each breast lies over the pectoralis major muscle, covering a large area from just below the collarbone (clavicle) to the armpit (axilla) and across to the breastbone (sternum). Women's breasts vary in size and shape, largely determined by the amount of fat present. It is common for one breast to be slightly larger or differently shaped than the other.

The primary function of the female breast is milk production, facilitated by the hormone prolactin, which stimulates milk production during pregnancy. Oxytocin, another hormone, helps release milk from the glands during breastfeeding. Beyond their reproductive role, breasts can also enhance sexual pleasure in both men and women through stimulation of the nipples.

The breast is divided into four quadrants, with most breast cancers developing in the upper outer quadrant closest to the armpit. This region contains a higher concentration of glandular tissue, making it more susceptible to cancer. Both men and women are at risk of developing breast cancer, making regular self-examinations essential for early detection. These exams involve visually and manually checking the breasts for lumps or abnormalities.

Breast health is a complex issue that requires a combination of lifestyle factors. A balanced diet, regular physical activity, limiting alcohol and tobacco consumption, and stress management techniques like yoga and meditation can help manage weight and reduce breast cancer risk.

Regular self-examinations and awareness of breast health are crucial for both men and women to catch any changes early, as early detection can improve the success of breast cancer treatment.



Breast Society of Ghana Launches "Pink October" Breast Cancer Awareness Campaign

The Breast Society of Ghana has officially launched its "Pink October" breast cancer awareness campaign, highlighting the critical need for education and support for those affected by the disease.

This year's campaign aims to dispel common myths surrounding breast cancer, particularly the misconception that it is contagious. During the event, attendees were educated on the key symptoms of breast cancer and encouraged to seek medical advice promptly if they notice any changes.

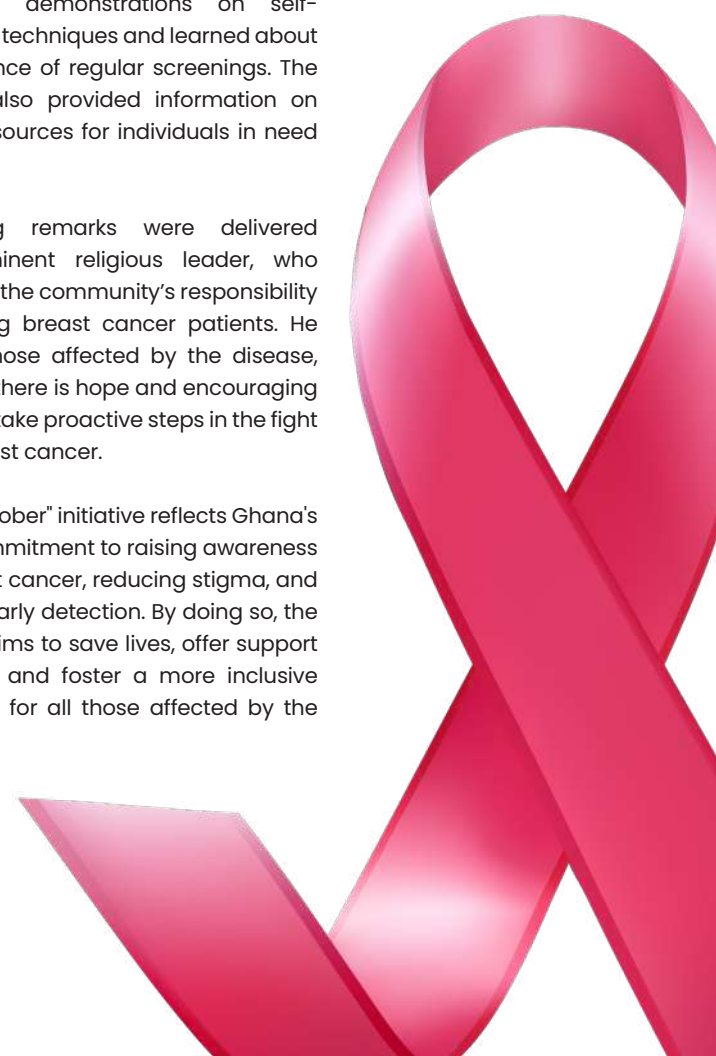
The society also unveiled the theme for this year's campaign: "Stop the Stigma, Be Supportive." The initiative seeks to create a more understanding and compassionate environment for individuals diagnosed with breast cancer, encouraging both emotional and practical support.

Key speakers at the event stressed that early detection is crucial, as it significantly increases the chances of survival. Participants

were given demonstrations on self-examination techniques and learned about the importance of regular screenings. The campaign also provided information on available resources for individuals in need of support.

The closing remarks were delivered by a prominent religious leader, who emphasized the community's responsibility in supporting breast cancer patients. He reassured those affected by the disease, stating that there is hope and encouraging everyone to take proactive steps in the fight against breast cancer.

The "Pink October" initiative reflects Ghana's growing commitment to raising awareness about breast cancer, reducing stigma, and promoting early detection. By doing so, the campaign aims to save lives, offer support to survivors, and foster a more inclusive environment for all those affected by the disease.





Polycystic Ovary Syndrome:

Exploring the Rays of Infertility

By Gloria Addo

Did you know that among the factors that cause infertility in women the leading cause stems from Polycystic Ovary Syndrome (PCOS)?

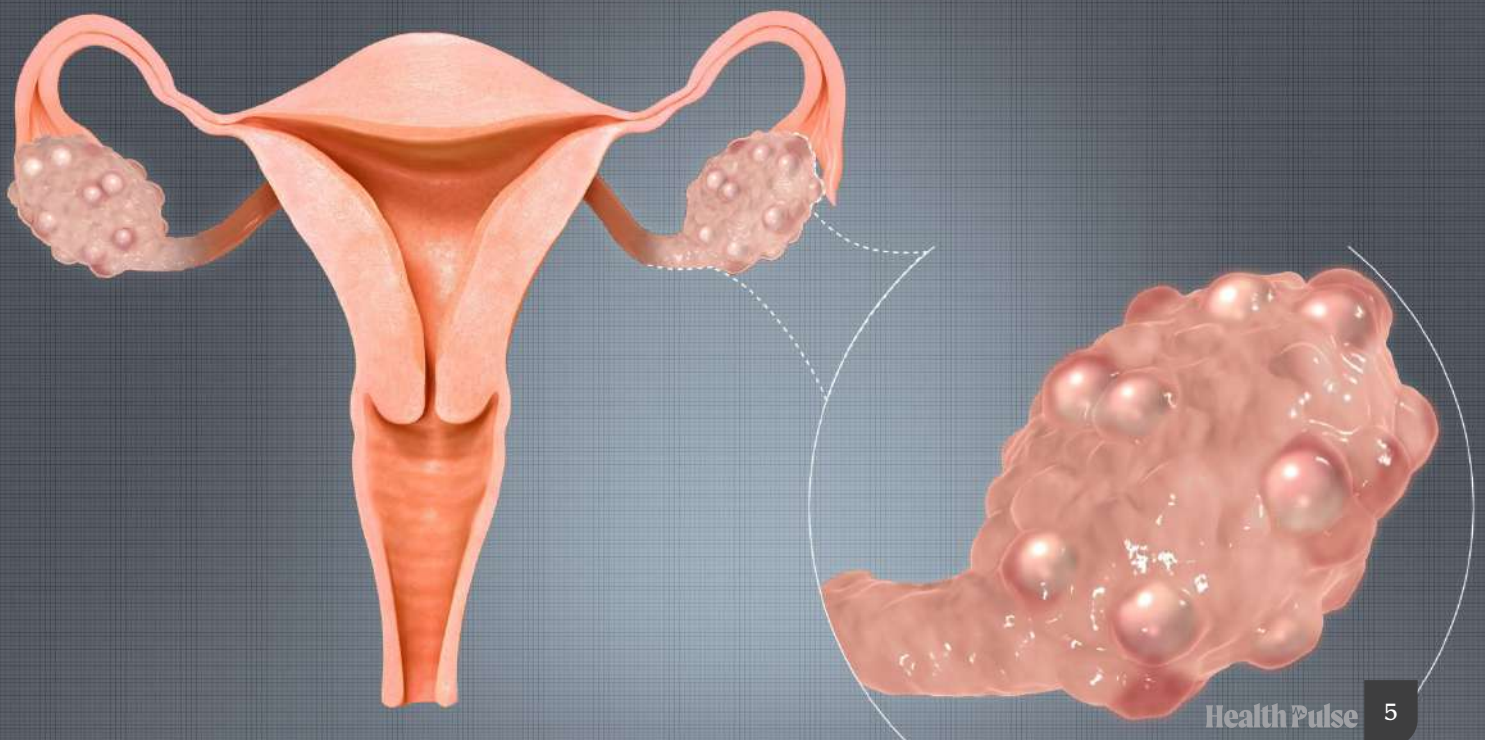
With 7 undiagnosed out of every 10 females living with the condition, polycystic ovary syndrome (PCOS) can be explained as a hormonal imbalance that occurs when your ovaries (the organ that produces and releases eggs) create excess hormones.

The term 'polycystic ovarian syndrome' implies that the disease is mostly with the ovaries and that you may have multiple cysts on them. However, it is a hormone-related disorder that can sometimes be linked to family history, genetics, lifestyle, and environment.

Polycystic ovarian syndrome can be diagnosed by two key symptoms: high androgen levels (hair loss, acne, or higher testosterone), irregular menstrual cycles (after other reasons have been ruled out), and polycystic ovaries on an ultrasound scan. Blood tests can identify hormone changes in women with polycystic ovary syndrome, including elevated levels of testosterone, estrogen, luteinizing hormone, insulin, and anti-mullerian hormone.

Starting most often after puberty to later in life, symptoms include heavy bleeding, irregular periods, weight increase, acne, hair growth, male pattern baldness, skin discoloration, and migraines. More than 70% of women with PCOS experience hirsutism as a result of facial and body hair growth. Male hormones can also bring acne, weight gain, and so on. Hormonal fluctuations in certain women might result in headaches, and dark patches of skin can develop in body creases. The inability to ovulate results in these symptoms because it stops the uterine lining from shedding each month.

This common hormonal issue affects 8-13% of women in their reproductive age. Consult a healthcare provider if you experience problems with periods, pregnancy, or excess androgen, such as hair growth, acne, or male-pattern baldness.



Digital Mammography:

A Game-Changer in Breast Cancer Detection

Gloria Addo

Breast cancer remains a significant health challenge in Ghana, with over 4,000 women diagnosed annually. Unfortunately, up to 70% of these cases are identified at advanced stages of the disease, greatly reducing the chances of survival.

These alarming statistics are attributed to a lack of awareness, inadequate screening, and insufficient treatment centers. Mammography, a specialized medical imaging method using low-dose X-rays, is a critical tool for early detection of breast cancer. Recent advancements in digital mammography have emerged as a breakthrough technology in the battle against breast cancer.

Digital mammography, also known as full-field digital mammography (FFDM), utilizes electronic sensors to convert X-rays into digital images, replacing traditional X-ray film. These digital images are then processed by a computer, resulting in better image quality at a lower radiation dose compared to conventional film mammograms. Similar to how a digital camera enhances photography by producing clear, high-quality images, digital mammography improves the clarity and accuracy of breast scans, enabling radiologists to make more precise diagnoses.

During a mammogram, the patient's breast is placed on a support plate attached to the X-ray machine, and a technologist uses a paddle to gently compress the breast, minimizing movement and spreading the tissue evenly. This step is crucial as it ensures that X-rays can pass through the breast tissue with fewer obstructions, improving image clarity and reducing the required radiation dose.

The X-ray signals are captured by a detector on the opposite side of the machine, converting them into electronic signals that form digital images. These digital images are reviewed by radiologists and stored for future reference, streamlining the diagnostic process and making it easier to track changes in the breast tissue over time.

In conclusion, digital mammography represents a significant advancement in breast cancer screening and diagnosis. By leveraging this technology, healthcare systems can improve early detection rates, leading to better outcomes and increased survival rates for women globally.



Women with Less Sleep at Risk of High Blood Pressure

By Gloria Addo

Researchers at the American College of Cardiology have established a link between sleeping less than seven hours and an increased risk of high blood pressure.

In as much as previous studies had already linked poor sleeping habits to high blood pressure, the results weren't precise. However, most recent statistics show the likelihood of developing high blood pressure later in life increases with decreasing sleep duration, with women at more risk than males.

Given that sleep habits tend to change with age, researchers were surprised to find that there were no age-based changes in the link between sleep duration and hypertension. Participants' ages ranged from 35.4 to 60.9 years, with women making up the majority (61%) of the group.

The study's primary investigator, Kaveh Hosseini, an assistant professor of cardiology at the Tehran Heart Center in Iran admitted that the study found a 7% increased risk of high blood pressure when

participants of the study reported sleep duration of less than seven hours.

This risk increased to 11% when sleep duration was less than five hours. Women who reported getting less than seven hours of sleep had a 7% higher chance of high blood pressure than did men.

Hosseini stated that further research is needed to evaluate the association between sleep duration and high blood pressure using more accurate methods, like polysomnography. Moreover, the variations in reference sleep duration underline the need for standardized definitions in sleep research to enhance the comparability and generalizability of findings across diverse studies.

"People who have sleep problems that may be the result of obstructive sleep apnea should discuss their sleep patterns with their healthcare provider. Studies have linked an increased incidence of high blood pressure, stroke, and coronary artery disease to sleep apnea," he added.

Source: NewScientist.com



What to know on Gastroparesis

By Chance Iradukunda

Gastroparesis is a chronic condition characterized by delayed gastric emptying due to impaired motility of the stomach muscles. This condition disrupts the normal digestion process, leading to various gastrointestinal symptoms and potential complications.

Symptoms of gastroparesis can be quite debilitating and include nausea, vomiting, abdominal bloating, early satiety (feeling full after eating only a small amount), and abdominal pain. These symptoms arise because the stomach's delayed emptying prevents food from moving efficiently into the small intestine, leading to discomfort and potential nutritional deficiencies.

Causes of gastroparesis vary and can include both primary and secondary factors. The most common cause is diabetes, particularly when poorly controlled, which can damage the vagus nerve responsible for regulating stomach muscles. Other causes include post-surgical changes, such as those following abdominal surgery, certain medications (especially narcotics and anticholinergics), and neurological conditions like Parkinson's disease. In some cases, the exact cause remains idiopathic.

Diagnosing gastroparesis typically involves a combination of clinical evaluation and specific tests. The gastric emptying study is the gold standard, where a patient ingests a meal containing a radioactive tracer, and the rate of emptying is monitored using imaging technology. Additionally, other tests like endoscopy or ultrasound may be used to rule out other conditions with similar symptoms.

Management of gastroparesis focuses on alleviating symptoms and improving quality of life. Dietary modifications are often the first line of treatment. Eating smaller, more frequent meals and focusing on low-fat, low-fiber foods can help reduce symptoms by easing the digestive process. In some cases, patients may benefit from a liquid

diet or semi-solid foods that are easier to digest.

Medications may be prescribed to help manage symptoms. Prokinetic agents, such as metoclopramide, can stimulate gastric motility, while antiemetics like ondansetron can help control nausea and vomiting. However, these treatments are often used cautiously due to potential side effects and the chronic nature of the condition.

For severe cases unresponsive to conventional treatments, interventions such as gastric electrical stimulation or even surgical options like jejunostomy (a tube placed directly into the small intestine) might be considered.





“Will Getting an X-Ray Gives You Cancer?”

By Chance Iradukunda

In the realm of health myths, one that often raises concern is the belief that getting an X-ray will inevitably give you cancer. This fear, while understandable given the seriousness of cancer, is not entirely grounded in scientific reality. Let's unpack this myth and explore the facts behind X-rays and cancer risk.

X-rays are a form of electromagnetic radiation, similar to visible light but with much higher energy. They are used in medical imaging to view the inside of the body without invasive surgery. When you get an X-ray, a small amount of this radiation passes through your body and creates images of bones and tissues.

Radiation and Cancer Risk

All radiation, including X-rays, carries

some level of risk because it can damage DNA, which is a key factor in cancer development. However, the amount of radiation from a typical X-ray is quite low. Medical X-rays are carefully calibrated to use the minimum amount of radiation needed to get a clear image, minimizing the risk to patients.

Risk Assessment

To put it in perspective, the radiation dose from a single X-ray is comparable to the amount of natural background radiation a person is exposed to over a few days. For instance:

- A chest X-ray delivers about 0.1 millisieverts (mSv) of radiation.
- The average person is exposed to about 3 mSv of natural background radiation annually.

To put it in context, studies show that the risk of developing cancer from a single chest X-ray is extremely low. For comparison, the risk from a single X-ray is orders of magnitude lower than the risks associated with many other daily activities and environmental exposures.

Balancing Risks and Benefits

X-rays offer significant benefits, such as diagnosing conditions that might go unnoticed, allowing for timely treatment and potentially saving lives. Healthcare providers follow strict guidelines, only recommending X-rays when necessary, and use protective measures to shield sensitive areas. Pregnant women are especially cautious, considering alternative imaging methods like ultrasound or MRI if appropriate.



Severe Flooding in South Sudan Displaces Thousands and Worsens Health Crisis

By Yosua Domedjui

More than 226,000 people have been displaced due to South Sudan's worst flooding in decades, which has destroyed homes, livelihoods, highways, and infrastructure, and decimated villages. Of South Sudan's 78 counties, 42 have been impacted, with 15 major roads, including those leading to the capital Juba, cut off. As of October 4, 2024, 890,000 people were living in flood-affected areas, with 90 health institutions inaccessible and 58 submerged in five counties.

The floods, caused by heavy rains during the April to November rainy season, have intensified due to climate change, leading to permanent displacement. South Sudan's humanitarian crisis is worsened as it also hosts nearly 800,000 refugees fleeing violence in neighboring Sudan. Two potential cholera cases have been detected in Renk County, and over 120,000 cases of malaria with 31 suspected deaths have been reported.

The World Health Organization (WHO), alongside South Sudan's Ministry of Health, is prioritizing health services for the affected population. WHO has sent 88 metric tonnes of emergency health kits, including cholera treatment kits, antimalarial medications, and antivenoms, to areas like Renk, Bentiu, Malakal, and Bor

counties. These supplies are expected to assist over 870,000 people.

WHO is working to address the growing health emergency by coordinating disaster response efforts, conducting needs assessments, and training healthcare workers. They are also focused on monitoring waterborne and vector-borne diseases, and working closely with local authorities to protect health facilities.

In response to climate change, WHO is helping countries, including South Sudan, to build climate-resilient health systems that can adapt to emerging health risks. Strong frameworks are needed to manage the health impacts of climate change, and WHO is assisting nations in developing strategies to address these issues while reducing carbon emissions from health systems.

Breast cancer, a common cancer among women, develops from uncontrolled cell growth in breast tissue. Early detection and improved treatments have greatly boosted survival rates, empowering countless women. Today, we celebrate the resilience of survivors, whose strength brings hope to all.

Finding Contentment in Crisis – The Story Margaret Odame Donkor's Journey



Margaret Odame Donkor, a loving wife and mother of two daughters, has faced many challenges in her life. Her battle with breast health issues began at the tender age of 18 when she discovered a lump in her breast. Fortunately, after a surgical removal, the lump tested negative for cancer, allowing her to continue with her normal life.

Years later, after getting married and giving birth, Margaret's life took an unexpected turn around the age of 45. The lump reappeared in her breast, and in 2022, she went for a routine breast screening. This time, the oncologist recommended a series of tests including a mammogram, biopsies, and an ultrasound. The results revealed that Margaret had stage 3 invasive carcinoma in her left breast, and fibroadenoma in her right breast—both highly suspicious of cancer.

Margaret was candid about the financial burden that came with the cancer diagnosis. She shared that the treatment costs were overwhelming, with the lowest expense for any of the tests being around GHC 1,500. Despite the financial challenges, Margaret continued her journey of checkups and scans, including liver ultrasounds and MRI scans for both breasts. Through it all, Margaret found immense support from her husband and children, who stood by her side during this difficult time. Their unwavering love gave her the strength to stay courageous, even in the face of fear.

Instead of succumbing to negativity, she chose to remain positive, focusing on love and mental strength. She pushed away all negativity and embraced a mindset of hope and resilience.

To others facing a breast cancer diagnosis, Margaret shares a powerful message:

"Be open. Get the support you need. Don't listen to outside opinions but trust your doctors. Don't be afraid. It's not easy to receive this news, but you will be fine."

Margaret's story is a testament to the power of courage, positivity, and family support. Her journey, though challenging, serves as an inspiration for anyone battling breast cancer, reminding them that hope and resilience can light the way through even the darkest moments.



Inspiring Others Using her Survival – Story of Phyllis Adoley Buckman (Five-Year Breast Cancer Survivor)

Q: Can you share how you discovered your breast cancer?

Phyllis Adoley Buckman: I'm Phyllis Adoley Buckman, 55 years old and a five-year breast cancer survivor. It all began when I was at Achimota Hospital for a regular check-up, and the doctor told me there was a lump in my breast. He recommended that I go to Korle-Bu Hospital for further tests. The doctors at Korle-Bu confirmed the diagnosis: it was breast cancer. That news changed my life.

Q: How did you react to the diagnosis?

Phyllis Adoley Buckman: Initially, I couldn't fully process the news. I felt numb. Once I was home, the reality hit me. I was anxious and scared, but I knew I had to put my trust in God and the doctors. I began my journey with strength from my faith, praying to stay strong for what was to come.

Q: What was your treatment process like?

Phyllis Adoley Buckman: The doctors created a treatment plan, starting with chemotherapy to shrink the tumor enough for surgery. I went through six cycles of chemotherapy, which was exhausting, but I kept going by God's grace. After that, I had surgery, followed by 25 rounds of radiotherapy. Now, I am in my fifth year of hormone therapy, and I'm hoping to finish it soon. It's been a challenging journey, but I'm grateful for the strength I've gained.

Q: How has your experience impacted your life?

Phyllis Adoley Buckman: After my treatment, I met another woman named Modesta who had also survived breast cancer. We felt it was our duty to help others facing this journey. For the past four years, we've visited Korle-Bu every Wednesday to encourage new patients. Seeing a survivor in person makes a big difference for them. We share our stories and photos of our journey to show them that it's possible to overcome this illness. It has been a blessing to help others find strength.

Q: Let's talk about the financial side of your treatment.

Phyllis Adoley Buckman: Breast cancer treatment is very expensive, and I'm grateful for the support of my family. It's challenging, especially with tests and medications. I used to work in a salon, but my doctors advised me to stop due to the chemicals, so I had to make some sacrifices. But I've stayed positive and refuse to let any stigma hold me back. I choose to tell my story on my own terms.

Q: Has your perspective on life changed?

Phyllis Adoley Buckman: Absolutely. My faith has grown so much. I shared my journey with my pastor and prayed for strength alongside my medical treatment. With the support of my faith, family, and healthcare team, I've made it this far. The experience has taught me to treasure each day.

Q: Any words for someone currently battling breast cancer?

Phyllis Adoley Buckman: Breast cancer is not an easy journey, but don't lose hope. Pray for strength and surround yourself with people who can support you. Each day, take a step forward, and remember that you're stronger than you think.



Hidradenitis Suppurativa: A Chronic skin condition.

By Chance Iradukunda

The exact cause of HS is not fully understood, but it is thought to involve an abnormal immune response leading to inflammation of hair follicles. Genetics, obesity, smoking, and hormonal changes may also play a role in its development. Symptoms often begin with small, painful nodules that can rupture and drain pus, leading to scarring and the formation of new lesions over time.

Diagnosis typically involves a physical examination and a review of symptoms. There are no definitive tests for HS, making it essential for healthcare providers to recognize its characteristic signs.

Treatment Options for Hidradenitis Suppurativa

Hidradenitis suppurativa requires a tailored approach to management. One of the first lines of treatment often includes topical therapies, which can be effective for mild cases. Topical antibiotics, such as clindamycin, help reduce bacterial presence and inflammation. Additionally, corticosteroid creams can relieve pain and swelling during flare-ups. These treatments are generally easy to use and can be integrated into daily routines, making them a convenient option for many patients.

Systemic medications like tetracyclines and biologic therapies like adalimumab are often recommended for moderate to severe cases of inflammation and infection. These medications help manage inflammation and reduce flare-ups, allowing patients to maintain a more active lifestyle. Patients should work closely with healthcare providers to monitor potential side effects.

Surgical interventions are often required for individuals with extensive disease or recurrent abscesses, ranging from draining to extensive surgery. These procedures can alleviate the disease burden, improve skin appearance, and enhance comfort. However, they may not prevent future flare-ups, necessitating ongoing management strategies.

Medical treatments and lifestyle modifications are crucial for managing hidradenitis suppurativa (HS). Maintaining a healthy weight, wearing loose-fitting clothing, practicing good hygiene, and stress management techniques like mindfulness or therapy can help reduce friction and sweating, while a comprehensive approach that combines medical treatment with lifestyle changes can significantly improve HS quality of life.

Hidradenitis suppurativa (HS) is a chronic skin condition that primarily affects areas rich in sweat glands, such as the armpits, groin, and under the breasts. Characterized by painful lumps, abscesses, and the formation of tunnels under the skin, HS can significantly impact quality of life.

Diphtheria:

What You Need to Know

By Chance Iradukunda



Diphtheria is a serious bacterial infection caused by *Corynebacterium diphtheriae*. It primarily affects the throat and nose but can also impact the skin and other mucous membranes. Although rare in many parts of the world due to widespread vaccination, it remains a significant health concern where immunization rates are low.

Diphtheria is spread through respiratory droplets when an infected person coughs or sneezes. It can also spread via contact with contaminated objects or surfaces. The bacteria produce a toxin that causes severe inflammation and damage to the tissues.

Diphtheria symptoms typically begin 2 to 5 days after exposure and can start suddenly with a sore throat, fever, and weakness.

One of the hallmark signs is a thick,

gray or white coating on the throat and tonsils, known as a pseudo membrane, which can make swallowing difficult and may cause breathing problems. The infection often leads to swollen lymph nodes in the neck, giving a "bull neck" appearance. In severe cases, the diphtheria toxin can cause complications such as myocarditis (inflammation of the heart muscle) and nerve damage, potentially resulting in paralysis.

Diphtheria requires immediate medical attention to prevent severe complications and transmission. The primary treatment involves administering diphtheria antitoxin, which neutralizes the toxin produced by *Corynebacterium diphtheriae*. This antitoxin is crucial in reducing the effects of the toxin on the body and must be given as soon as possible after diagnosis.

In addition to antitoxin therapy, antibiotics such as penicillin or

erythromycin are prescribed to eradicate the bacteria from the patient's system and prevent further spread of the infection. The choice of antibiotic depends on the severity of the infection and the patient's overall health condition.

Supportive care is also essential during recovery. This includes rest, adequate hydration, and monitoring for potential complications such as myocarditis or nerve damage. In severe cases, patients may need hospitalization for intensive monitoring and treatment. Ensuring the patient's environment is clean and practicing good hygiene are important to prevent transmission. Adhering to the full course of antibiotics and follow-up care is crucial to ensure complete recovery and minimize the risk of recurrence.

Vaccination is the most effective method for preventing diphtheria, typically administered during childhood and booster doses recommended every 10 years, ensuring high community vaccination coverage.



Spirometry

By Yosua Domedjui,

Spirometry, or inspiratory testing, is the most commonly performed pulmonary function test (PFT), essential in diagnosing and monitoring various respiratory conditions. This test involves a series of specific examinations to assess the lungs' ventilatory capacity by measuring air volumes and flow rates during breathing.

During spirometry, patients breathe into a specialized device that records key parameters like lung volumes, air flows, and lung capacity under controlled conditions. These measures help healthcare professionals diagnose respiratory diseases, such as asthma and chronic obstructive pulmonary disease (COPD), and evaluate the effectiveness of treatment. By tracking changes over time, spirometry is invaluable for monitoring disease progression.

There are two main types of spirometry: simple and forced. Simple spirometry measures standard breathing patterns, while forced spirometry measures air flow when a patient breathes out as hard as possible after a full inhalation. Forced spirometry is particularly useful in detecting obstructive lung diseases, such as COPD, which is characterized by reduced airflow due to airway narrowing.

The results of a spirometry test are typically displayed in a graphical format, showing either volume over time or flow rate over volume. These graphs allow physicians to assess lung function precisely and identify issues with airflow or restricted breathing capacity. Obstructive lung conditions, where the airway is partially blocked, and restrictive lung conditions, where the lung volume is reduced, can be differentiated through these graphical results.

Overall, spirometry provides detailed information on respiratory health, aiding in both early detection and ongoing management of respiratory conditions. It is a straightforward, non-invasive, and highly informative test that continues to be a cornerstone in respiratory medicine.





Lettuce Salad

By Pavel Chamabe

Lettuce is a powerhouse of nutrients, low in calories but rich in fiber, vitamins A, C, and K, and essential minerals. Known for its high-water content, it helps keep you hydrated and supports healthy digestion. Adding lettuce to your diet can help lower cholesterol levels, improve eye health, and boost immunity, making it a fantastic choice for a refreshing salad.

Ingredients:

- 1 head of fresh lettuce (any variety)
- 1 medium cucumber, sliced
- 1-2 tomatoes, diced
- 1/4 red onion, thinly sliced
- 1/2 cup shredded carrots
- 1/2 avocado, sliced (optional)
- 2 tablespoons olive oil
- 1 tablespoon lemon juice or apple cider vinegar
- Salt and pepper to taste
- Fresh herbs like parsley or cilantro (optional)

Préparation Steps

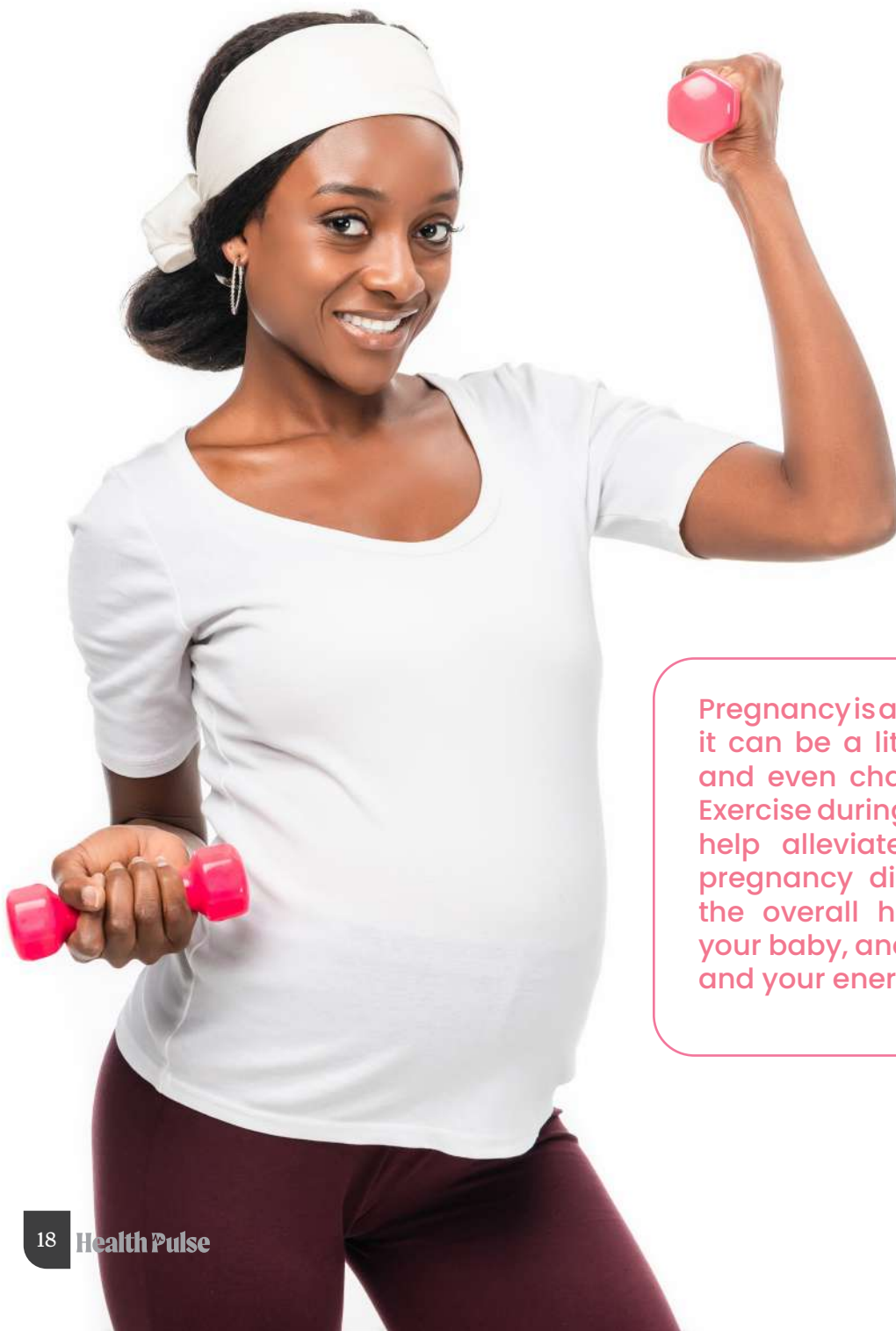
- **Prepare the Lettuce:** Start by rinsing the lettuce leaves thoroughly under cool water. Pat dry with a kitchen towel or use a salad spinner to remove excess water. Chop or tear the lettuce into bite-sized pieces and place it in a large salad bowl.
- **Add Fresh Vegetables:** Layer the cucumber slices, diced tomatoes, red onion, shredded carrots, and avocado slices over the lettuce. These add color, texture, and nutrients to your salad.
- **Make the Dressing:** In a small bowl, whisk together the olive oil and lemon juice or vinegar. Add a pinch of salt and pepper to taste. If you prefer a stronger flavor, consider adding a teaspoon of Dijon mustard or honey.
- **Combine and Serve:** Pour the dressing over the salad and toss gently to coat the ingredients evenly. Sprinkle fresh herbs on top for added flavor if desired.
- **Enjoy:** Serve immediately as a refreshing side dish or a light meal. This crisp, nutritious salad is both delicious and beneficial for your health!





Staying Fit for Two: Exercise during Pregnancy

By Gloria Addo



Pregnancy is a beautiful thing, but it can be a little uncomfortable and even challenging at times. Exercise during pregnancy might help alleviate many common pregnancy discomforts, benefit the overall health of you and your baby, and boost your mood and your energy level!

Most experts agree that the best exercise during pregnancy is aerobic activity.

Walking is an excellent starting point for exercise during pregnancy, as it is easy on joints and can be done anywhere.

Cycling is another aerobic exercise suitable for pregnancy, offering a moderately intense workout while being gentle on joints.

Swimming is another option, as it supports your weight in the water and provides a thorough workout.

Modified yoga and Pilates are suitable for toning and stretching muscles, improving flexibility and balance, and promoting focused breathing. However pregnant women should look for classes designed for pregnant women, as some poses and exercises may be unsafe.

Tai chi is a slower, more controlled movement that can reduce stress-related pain and improve flexibility, balance, energy, and muscle tone.

Dancing can be a gentle aerobic exercise, but avoid abrupt movements like bouncing or leaping.

To stay safe and healthy during pregnancy, dress comfortably, drink plenty of water, start gradually, and listen to your body. Wear sports bras, loose clothing, and a belly support belt to protect your breasts and stay cool. Start with five minutes a day and gradually increase to 30 minutes. Listen to your body to tell you when to slow down, stop exercising, or take it easy. Remember to stay hydrated and avoid signs of dehydration.

Most importantly, consult your healthcare provider before starting any exercise program or routine during pregnancy, as there are certain conditions that limit physical activity. But in general, it's best to avoid fast-paced activities or those that could cause you or your baby harm, like contact sports, hot yoga, scuba diving, or skiing.

Exercises during pregnancy can alleviate aches and pains and prepare the body for labor; consider adding them to your routine.





Early Detection Saves Lives: Mastering the Self-Breast Exam

By Gloria Addo

A breast self-exam is a regular, step-by-step examination of your breasts, allowing you to detect changes. While mammograms are effective, home-based regular checks are preferred for familiarity.

There are a few different ways to perform a breast exam at home:

1. Looking in a mirror: Take off your shirt and bra and stand in front of a mirror. Put your arms down by your sides. Look for any changes in breast shape, breast swelling, dimpling in your skin, or changes in the position of your nipples. Next, raise your arms high over your head and look for the same things. Finally, put your hands on your hips and press firmly to make your chest muscles flex. Look for the same changes again. Be sure to look at both breasts.
2. Manual breast self-exam while standing: Remove your shirt and bra. Use your right hand to examine your left breast, then vice versa. With the pads of your three middle fingers,

press on every part of one breast. Use light pressure, then medium, then firm. Feel for any lumps, thick spots, or other changes. A circular pattern may help you make sure you hit every spot. Then, press the tissue nearest your armpit. Be sure to check under your areola (area around your nipple) and then squeeze your nipple to check for discharge. Repeat the steps on the other side. Many people perform a standing self-exam while in the shower.

3. Manual breast self-exam while lying down: When you lie down, your breast tissue spreads more evenly. This makes it a good position to feel for changes, especially if your breasts are large. Lie down and put a pillow under your right shoulder. Place your right arm behind your head. Using your left hand, apply the same technique as option 2, using the pads of your middle fingers to press all parts of your breast tissue and under your armpit. Finally, swap the pillow to the other side, and check your other breast and armpit. Be sure to check

under your areola and then squeeze your nipple to check for discharge.

Keep in mind that your breast tissue extends to your armpit, collarbone, and top of your abdomen. Your breast tissue isn't just your breast cleavage and nipples.

Menstruating individuals should perform a breast self-exam after their period ends, while those in menopause or irregular periods can choose a consistent, easy-to-remember day. Monthly breast self-exams can detect signs of infection, disease, or cancer by recognizing normal breast appearance and sensation however they should not replace regular provider exams and mammograms.



The Importance of Regular Check-Ups and Screenings

Regular check-ups and health screenings play a crucial role in maintaining overall health and well-being. These preventive measures help identify potential health issues before they become serious, allowing for early intervention and treatment. Establishing a routine for check-ups can significantly impact long-term health outcomes and enhance the quality of life.

One of the primary benefits of regular check-ups is the ability to catch health problems early. Conditions such as hypertension, diabetes, and certain cancers may not present noticeable symptoms until they reach advanced stages. Routine screenings—such as blood pressure checks, cholesterol tests, and cancer screenings like mammograms or colonoscopies—can detect these issues in their early stages, making treatment more effective and less invasive. Early detection often leads to better prognoses and can even save lives.



In addition to early detection, regular check-ups provide an opportunity for healthcare providers to monitor chronic conditions. For individuals with existing health issues, such as asthma or heart disease, regular visits allow for adjustments in treatment plans based on progress and changing health needs. This ongoing management can help prevent complications and improve overall quality of life.

Moreover, check-ups serve as a platform for patient education and preventive care. During these visits, healthcare providers can offer guidance on lifestyle choices, including nutrition, exercise, and stress management. Vaccinations can also be updated, ensuring that patients are protected against preventable

diseases. By fostering a proactive approach to health, regular check-ups empower individuals to take charge of their well-being and make informed decisions about their health.

In conclusion, prioritizing regular check-ups and screenings is essential for maintaining optimal health. These preventive measures facilitate early detection of potential health issues, enable effective management of chronic conditions, and provide valuable education for healthier lifestyle choices. By committing to routine healthcare visits, individuals can significantly enhance their health and well-being, ultimately leading to a longer, healthier life.

Hypogonadism

A threat to Men's Reproductive Health.

By Chance Iradukunda

Hypogonadism in men, also known as low testosterone or low T, is a condition where the body produces insufficient levels of testosterone, the primary male sex hormone. Testosterone plays a crucial role in various physiological processes, including sexual function, muscle and bone health, and overall well-being. When testosterone levels drop below normal, it can significantly impact a man's health and quality of life.

Causes of Hypogonadism

Hypogonadism in men can be categorized into primary and secondary types. Primary hypogonadism occurs due to test issues, such as genetic disorders, infections, and physical trauma. Secondary hypogonadism results from hypothalamus issues, which regulate testosterone production. Disorders in the pituitary gland, tumors, and chronic diseases can disrupt the hormone signals necessary for testosterone production, contributing to secondary hypogonadism.

Symptoms of Hypogonadism

Hypogonadism in men causes symptoms like reduced libido, erectile dysfunction, and sexual satisfaction. Physical signs include decreased muscle mass, increased body fat, and bone density. Emotional and cognitive effects include depression, irritability, fatigue, and difficulty concentrating.

Treatment Options

Treatment for hypogonadism focuses on restoring normal testosterone levels and addressing underlying causes:

Testosterone Replacement Therapy (TRT) is a treatment for hypogonadism in men, aiming to restore normal testosterone levels and alleviate symptoms. It includes injections, patches, gels, and pellets. Injections increase testosterone levels quickly, patches provide steady release, gels offer gradual absorption, and pellets implanted under the skin release the hormone over several months.

Treatment for secondary hypogonadism in men involves managing chronic diseases like diabetes or obesity, which can improve testosterone levels and alleviate symptoms. Treatment of pituitary or hypothalamic disorders can restore normal hormonal function. If specific medical conditions are identified as the root cause, targeted treatments or interventions may be necessary.

Lifestyle changes, such as a healthier diet, increased physical activity, and stress reduction, can help manage hypogonadism and improve medical treatments. Strength training can boost testosterone levels and improve mood, while stress reduction techniques and sleep hygiene contribute to hormonal balance. Combining these lifestyle modifications with medical treatments offers a comprehensive approach to improving quality of life.

Hyponatremia



Meal Prep: Tips for Healthy Eating on a Busy Schedule

By Chance Iradukunda



In today's fast-paced world, maintaining a healthy diet can often feel overwhelming. Meal prepping is an effective strategy that helps streamline your eating habits, save time, and promote healthier choices. Here are some essential tips to make meal prep a manageable and rewarding part of your weekly routine.

1. Plan Your Meals

Start by planning your meals for the week. Take some time to decide which recipes you'd like to prepare, focusing on a balance of protein, whole grains, and plenty of fruits and vegetables. Consider your schedule—choose meals that are quick to prepare or can be made in larger batches. Write down your meal plan and create a grocery list to ensure you have all the necessary ingredients.

2. Choose the Right Containers

Invest in quality, airtight containers that are suitable for both refrigerator and freezer storage. Glass containers are great for reheating in the oven or microwave, while BPA-free plastic options can be lighter for on-the-go meals. Organize your containers by size and label them to easily identify the contents. This organization will save you time when you're ready to eat.

3. Batch Cooking

Dedicate a few hours each week to batch cooking. Start with versatile staples like grains (brown rice, quinoa), proteins (chicken, beans, tofu), and roasted vegetables. These can serve as the foundation for various meals throughout the week. For example, grilled chicken can be used in salads, wraps, or stir-fries.

Preparing large quantities at once not only saves time but also ensures you have nutritious options readily available.

4. Incorporate Variety

To avoid boredom, mix different flavors and textures in meals, experiment with herbs, spices, and sauces, and vary proteins and vegetables weekly. This ensures enjoyment while maintaining healthy options, like alternating between quinoa with roasted vegetables and stir-fry.

Meal prepping is a crucial method for maintaining a healthy diet in a busy lifestyle. It involves planning meals, batch cooking, and incorporating variety, allowing for nutritious and delicious meals without stress. This sustainable routine supports health and well-being.

PTSD—

The Stealth Thief of Contentment

By Gloria Addo

Ever encountered a shocking or dangerous situation that keeps replaying negatively in your mind with an aftereffect of fear? Once a safe place, the world suddenly becomes a place where evil triumphs, causing one to question their safety. This experience is characteristic of post-traumatic stress disorder (PTSD).

Post-traumatic stress disorder (PTSD) is a mental health problem that may develop after experiencing traumatic events. The condition that was first recognized in war veterans had different names in the past, such as 'shell shock', but currently several events can lead people to PTSD.

The majority of survivors of traumatic situations may experience short-

term difficulties adjusting and coping, but they often recover with time and appropriate self-care. However, you might have PTSD if the symptoms worsen, last for several months or even years, and affect your ability to operate daily.

PTSD symptoms can be classified as delayed-onset PTSD, which emerges over six months after experiencing trauma.

Complex PTSD occurs after early or prolonged trauma. Birth trauma develops after a traumatic experience of childbirth.

Secondary trauma can occur when experiencing PTSD symptoms while supporting someone who had trauma.

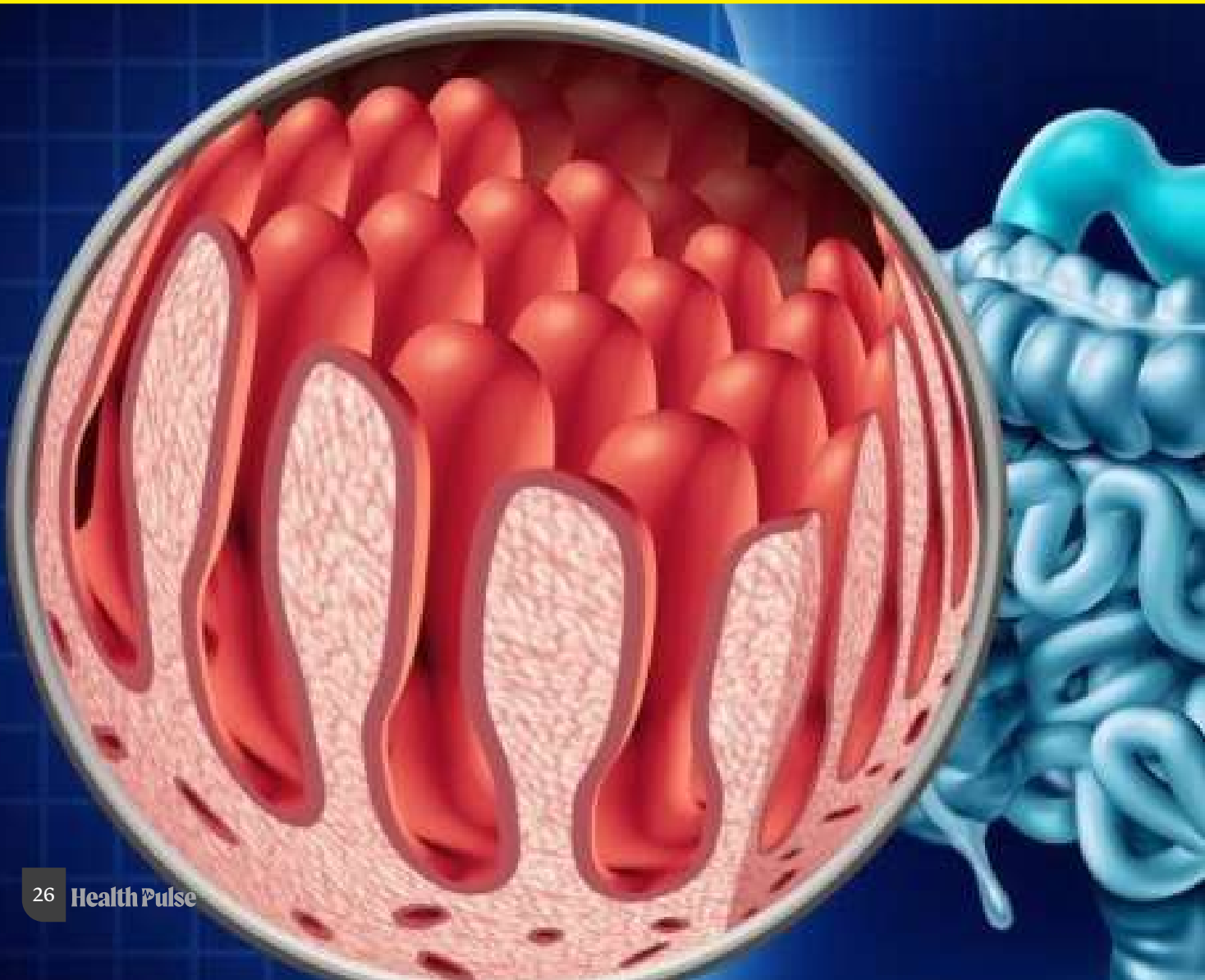
PTSD affects roughly six out of every 100 individuals with genetics, and traumatic incidents as the main factors in the development of PTSD.

It's crucial to remember that you are not alone in experiencing PTSD. Misconceptions about PTSD often suggest that it is a weakness, but it is not a choice or weakness. Anyone with PTSD symptoms needs to work with a mental health professional who has experience treating PTSD. The main treatments are psychotherapy, medications, or a combination of psychotherapy and medications. The professional can help find the best treatment plan based on individual symptoms and needs.



Understanding the Pathophysiology and Incidence of **Celiac Disease**

Yosua Domedjui



Celiac disease is an autoimmune disorder triggered by gluten, a protein found in wheat, barley, and rye. When individuals with celiac disease consume gluten, their immune system mistakenly attacks the small intestine, leading to inflammation and damage to the intestinal villi—tiny, finger-like projections lining the small intestine. This damage impairs nutrient absorption and can lead to various complications if untreated.

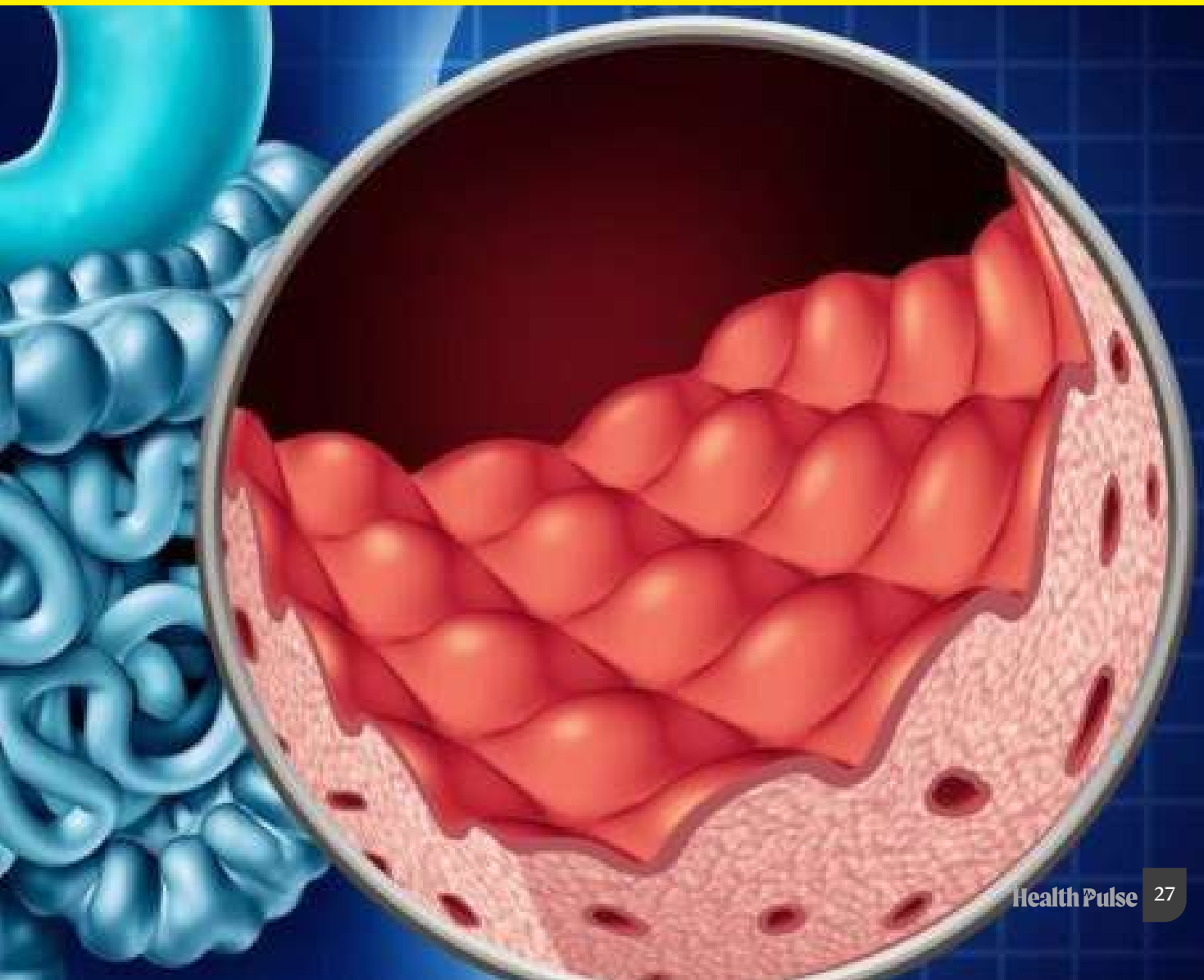
The pathophysiology of celiac disease involves both genetic and environmental factors. Genetically, individuals with certain alleles of the human leukocyte antigen (HLA), particularly HLA-DQ2 and HLA-DQ8, have an increased susceptibility to

the disease. Upon gluten exposure, the immune system inappropriately activates T cells in the small intestine, producing an inflammatory response. This response leads to the destruction of villi, a process known as villous atrophy, which reduces the surface area available for nutrient absorption. Over time, this can lead to malnutrition, anemia, osteoporosis, and other health issues.

In terms of incidence, celiac disease affects roughly 1% of the global population, although it is more commonly diagnosed in Western countries. It is particularly prevalent in individuals of European descent. Improved awareness and diagnostic methods have led to an increase in diagnosis rates, although many cases remain undiagnosed or misdiagnosed

as other gastrointestinal disorders, such as irritable bowel syndrome (IBS). Celiac disease can develop at any age but often appears in childhood or early adulthood.

Managing celiac disease primarily involves a strict, lifelong gluten-free diet, which can prevent further intestinal damage and alleviate symptoms. Early diagnosis and dietary adherence are essential to avoiding complications and improving quality of life for those affected. Research continues to explore alternative treatments and a potential cure, but currently, a gluten-free diet remains the cornerstone of celiac disease management.





What to Do If You Miss a Dose of Medication

Missing a dose of medication happens to everyone now and then. While it can be concerning, experts agree that there are steps you can take to minimize any negative effects. Here's what doctors recommend when you find yourself in this situation.

Assess the Timing of the Missed Dose
According to Dr. Emily Hill, a primary care physician, the first step is to determine how much time has passed since your missed dose. "If it's only been a couple of hours, it's usually safe to take the missed dose right away," she advises. However, if it's almost time for your next scheduled dose, most doctors recommend skipping the missed dose to avoid taking two doses too close together, which can lead to potential side effects or overdosing.

Review the Type of Medication
Different medications have different protocols. Dr. Sarah Kim, a clinical pharmacist, emphasizes, "For short-term antibiotics, missing a dose can impact treatment efficacy, so it's best to take the dose as soon as you remember." She explains that for these medications, maintaining consistent levels in your system is crucial to fighting infections effectively.

However, some drugs, like heart medications or insulin, require more caution. Missing these can lead to symptoms like dizziness, spikes in blood sugar, or chest pain. In such cases, contact your doctor or pharmacist, who may advise taking the missed dose right away or following another specific protocol.

Avoid Doubling Up Without Consulting a Doctor
"Doubling up doses can often lead to adverse reactions, especially with medications for blood pressure, diabetes, or mental health," states Dr. James Carter, a cardiologist. This is particularly true for time-sensitive drugs that have a narrow therapeutic index, meaning they work effectively only within a specific dosage range. If you miss a dose of these, Dr. Carter

recommends contacting your healthcare provider for guidance.

Establish a Reminder System
To reduce the chances of missing doses in the future, Dr. Hill suggests creating a routine, such as setting alarms or using a medication tracker. "Pill organizers and phone reminders can help patients stay on schedule, especially if they're managing multiple medications."

When in Doubt, Consult a Professional
All experts agree that if you're unsure, consulting a doctor or pharmacist is the best approach. They can guide you on safely handling the missed dose and provide personalized advice based on your medication type and health condition.





Medical Jargons You Need to Know

Here are medical jargons and their meanings:

1.Arrhythmia: An irregular heartbeat or abnormal heart rhythm, which can lead to various complications, including stroke or heart failure.

2.Prognosis: A medical term that refers to the likely course and outcome of a disease or condition, including chances of recovery.

3.Pathology: The study of diseases, including their causes, effects on the body, and changes in tissue and organs that occur due to disease.

4.Hemostasis: The process that prevents and stops bleeding, involving the clotting of blood through a series of biochemical reactions.

5.Etiology: The study of the cause or origin of a disease or condition, which can include genetic, environmental, and lifestyle factors.



    Hcowaghana

info@hcowaa.com | www.hcowaa.com