

Magnesium deficiency and depression: what you should know

Magnesium is a vital nutrient that supports muscle and nerve function, regulates blood sugar and pressure, and aids in making protein, bone, and DNA. Yet, it is believed that nearly half of Americans may be deficient. This deficiency is increasingly linked to mental health issues, including depression and anxiety.

Magnesium supports mood by boosting calming brain chemicals and reducing stress hormones. It influences serotonin and glutamate levels, both essential for emotional balance. Chronic stress, poor diet, and depleted soil nutrients all contribute to low magnesium levels, creating a cycle where stress depletes magnesium, leading to more stress and mood issues.

Unfortunately, standard blood tests may not accurately detect magnesium deficiency, as most of the mineral is stored in bones and organs, not blood.

One form often recommended for mood support is magnesium glycinate, known for better absorption and fewer digestive side effects. While the general supplement limit is 350 mg daily, individuals with depression may benefit from slightly higher doses under medical supervision. Splitting the dose throughout the day and taking some at night may improve absorption and sleep.

Magnesium from food is a safe and effective option. Sources include leafy greens, nuts, seeds, whole grains, beans, dark chocolate, and dairy. Getting magnesium through food helps avoid side effects like low blood pressure or digestive upset.

Magnesium can be used alongside antidepressants, often enhancing their effectiveness. However, always consult a healthcare provider before starting supplements, especially if you have kidney or heart conditions or take other medications.



IN MY ARMS, YOU THRIVE: saving newborn lives through KMC

DR ABDULLAHEL AMAAN &
DR KHAINOOR ZAHAN

Globally, 2.3 million children died in the first 28 days of life in 2022. There are approximately 6,500 newborn deaths every day, amounting to 47% of all child deaths under the age of 5 years.

The world has made substantial progress in child survival since 1990. Globally, the number of neonatal deaths declined from 5.0 million in 1990 to 2.3 million in 2022. Yet in 2022, nearly half (47%) of all deaths in children under 5 years of age occurred in the newborn period. Most neonatal deaths (75%) occur during the first week of life. The leading causes of death include premature birth, birth complications (birth asphyxia/trauma), neonatal infections and congenital anomalies. In Bangladesh the neonatal mortality rate was 20 to 20 deaths per 1,000 live births (BDHS 2022).

Newborns, especially premature ones, are prone to developing hypothermia (low body temperature) from their deficient thermal insulation, as they have limited subcutaneous fat and sometimes a sudden exposure to the changes in the temperature in their surrounding environment.

Hypothermia is a major contributing factor to newborn illness, subsequent hospitalisation and even death. Hypothermia in newborns can have multi-organ involvements, such as heart-lung dysfunction, weakness, poor feeding, metabolic derangements resulting in low blood sugar levels, and life-threatening metabolic events. Their risk of mortality is five times more than newborns with normal body temperatures. Thus, preventing hypothermia is an essential part of newborn care.

To prevent such catastrophic hypothermia events, the World



Health Organisation (WHO) recommends ensuring immediate Kangaroo Mother Care (KMC) for these newborns. Kangaroo Mother Care (KMC) is a method of caring for low-birth-weight and preterm infants by providing continuous skin-to-skin contact (by mother or even another carer) and support for breastfeeding. Infants receiving kangaroo mother care were found to show 40% less mortality than those who received conventional care in an incubator in hospitals.

The early KMC technique was first presented by Dr Rey and Dr Martinez in 1983 in Bogotá, Colombia, where it was developed as an alternative to inadequate and insufficient incubator care for premature newborns. Decades of research and development have documented that KMC lowers infant mortality and the risk of hypothermia and hospital-acquired infection, increases weight gain of infants, increases rates of breastfeeding, protects neuromotor and brain development of infants, and improves mother-

infant bonding. Today, the WHO recommends Kangaroo mother care (KMC) for preterm or low-birth-weight infants should be started as soon as possible after birth.

To raise awareness and promote the practice of KMC, International Kangaroo Care Awareness Day is being observed globally on 15th May annually since 2011. The theme of this day in this year is "In My Arms, You Thrive". It ensures our commitment to protecting and nurturing every newborn through the power of our touch. It highlights the profound impact of KMC in promoting healing, stability, and lifelong well-being while honouring the clinicians, families, and communities that make it possible.

The writers are the assistant professors of Neonatology at the Institute of Child & Mother Health (ICMH), Matuail, Dhaka and public health specialist respectively. Email: abdullahelamaan@gmail.com, khainoorzahan@gmail.com

Embedding wellness into youth education and lifestyle

STAR HEALTH DESK

In an era where academic pressure, digital distractions, and societal expectations weigh heavily on young minds, a panel of leading experts gathered at the Dhaka Flow Youth Wellness Festival to redefine youth development through a wellness-first approach. The session, themed "embedding wellness into youth education & lifestyle: physical, emotional & nutritional well-being", called for integrating wellness into every aspect of a young person's life—education, lifestyle, and even career preparation.

Mental health: starting early, thinking big - Ms Salma Ikram, Senior Psychologist at United Hospital, stressed that emotional challenges in youth often begin around age ten. "If we wait until university to address emotional well-being, we are already too late," she warned. She advocated for embedding mental health literacy into school curricula and training teachers to spot early signs of distress. "We need to normalise asking for help as a strength, not a weakness."

Nutrition: food as fuel for focus - Ms Chowdhury Tasneem Hasin, Chief Clinical Dietitian at United Hospital, highlighted the growing impact of diet culture and misinformation. She urged schools to adopt canteen policies, workshops, and student-led wellness clubs. "Food is self-care—it is not just calories, it is chemistry."

Wellness and employability - Fahmidur Rahman Oni, Co-founder and Principal of DMR Institute of Skill Development and Local President of JCI Dhaka United emphasised that physical and mental well-being are key to academic and professional success. "Wellness increases a student's ability to learn, collaborate, and persist through challenges."

Financial literacy: a wellness imperative - Lowell Campbell, financial expert highlighted financial stress as a hidden source of youth anxiety. "When youth understand budgeting and goal-setting, they gain control—boosting mental health."

The heart-friendly oils: what experts want you to use now

RAISA MEHZABEEN &
BOISHAKHI DEY

In a time when cardiovascular diseases remain the leading cause of death worldwide, health professionals and organisations are urging the public to make smarter dietary choices—especially when it comes to fat consumption. The American Heart Association (AHA) has reiterated the importance of replacing saturated and trans fats with healthier alternatives, particularly plant-based oils rich in unsaturated fats.

Backed by growing scientific evidence, a new focus is being placed on oils that not only enhance flavour but also offer potent cardiovascular benefits. Below are the top 10 heart-healthy oils endorsed by health experts and supported by the AHA:

1. Olive oil: Often referred to as the healthiest oil, extra virgin olive oil is abundant in monounsaturated fats and antioxidants. Research shows that it helps reduce LDL (bad cholesterol) and maintain HDL (good cholesterol), significantly lowering the risk of heart disease. The

AHA includes olive oil in its list of heart-healthy dietary fats, particularly due to its anti-inflammatory effects.

2. Avocado oil: Derived from the flesh of avocados, this oil contains heart-friendly monounsaturated fats and potassium. Studies indicate it helps reduce blood pressure, supports artery health, and combats inflammation.

3. Canola oil: Commonly used for its neutral flavour and affordability, canola oil offers a good source of omega-3 fatty acids and has one of the lowest saturated fat contents among cooking oils. According to AHA guidelines, it is a smart choice for maintaining cholesterol balance and cardiovascular function.

4. Flaxseed oil: An excellent plant-based source of omega-3 (ALA), flaxseed oil supports vascular health and reduces inflammation. As it is heat-sensitive, it is best used in salad dressings or smoothies.

5. Walnut oil: This nutty oil is rich in polyunsaturated fats and alpha-linolenic acid. Evidence suggests that regular consumption improves endothelial function and lowers triglycerides, helping to prevent artery hardening.

6. Soybean oil: Widely used in commercial kitchens, soybean oil contains essential fatty acids and vitamin K. It is beneficial for cholesterol control and may help reduce the risk of coronary artery disease when used in moderation.

7. Sunflower oil: High in vitamin E and available in a high-oleic form, sunflower oil supports immune health and cardiovascular protection. The AHA advises choosing high-oleic versions, which are richer in heart-friendly monounsaturated fats.

8. Corn oil: Recognised by the AHA for its cholesterol-lowering potential,

corn oil contains phytosterols and polyunsaturated fats that help manage LDL levels and support arterial health.

9. Sesame oil: Used in various cuisines for its distinct flavour, sesame oil is loaded with lignans like sesamin and sesamol, which exhibit strong antioxidant and anti-inflammatory properties. It may also assist in lowering blood pressure.

10. Grapeseed oil: A byproduct of winemaking, grapeseed oil is rich in polyunsaturated fats and vitamin E. It supports healthy circulation and reduces the oxidation of LDL cholesterol—a major contributor to plaque formation.

Nutritionists emphasise that adopting heart-healthy oils in everyday cooking can lead to a meaningful reduction in heart disease risk. "Simple swaps—like using olive or canola oil instead of butter—can make a significant difference over time," says Dr Alice H. Lichtenstein, a member of the AHA's nutrition committee.

As the global burden of heart disease continues to climb, such dietary adjustments offer a practical and accessible path to prevention.



When a broken heart turns deadly: the hidden risk for men

"Broken heart syndrome", or takotsubo cardiomyopathy (TC), is a temporary heart condition triggered by extreme stress or emotions—like the loss of a loved one or a serious accident. While it mostly affects women (around 80% of cases), recent research shows men are more than twice as likely to die from it.

This condition causes part of the heart to weaken and change shape, making it harder to pump blood. Although it usually improves with time, it can lead to serious complications. Surprisingly, despite medical advances, survival rates have not improved over the past five years. Researchers are still unsure why men tend to have worse outcomes, but the findings highlight the need for more awareness and better treatment.

Tips to protect your heart from stress:

1. Manage stress early - Daily stress can build up over time. Practice relaxation techniques like deep breathing, yoga, or meditation.
2. Stay socially connected - Talking to friends, family, or a support group can help ease emotional burdens.
3. Exercise regularly - Physical activity boosts mood and strengthens your heart.
4. Seek help after emotional trauma - If you have gone through something deeply upsetting, talk to a doctor or mental health professional.
5. Do not ignore symptoms - If you feel chest pain, shortness of breath, or dizziness—especially after stress—seek medical help right away.

"Broken heart syndrome" shows that our emotions truly affect our physical health. Taking care of your mental well-being is just as important as taking care of your body.



SOURCE: JOURNAL OF THE AMERICAN HEART ASSOCIATION

Is routine cancer surveillance always helpful?

After completing cancer treatment, many patients undergo regular scans and blood tests to check for a return of the disease. This process, called surveillance, is commonly done every 6 months for up to 5 years. The idea is that catching cancer early, before symptoms appear, could lead to better treatment outcomes. However, research shows this may not always be true.

Studies, including randomised controlled trials, show that routine testing for cancer recurrence in people who feel fine does not reduce the risk of death. In fact, detecting cancer earlier does not always mean better survival—it can just appear that way because the disease is found sooner (a concept called lead-time bias).

Surveillance can also bring harm. Tests like CT scans and MRIs are expensive, can cause stress or anxiety (often called "scanxiety"), and sometimes lead to more procedures that may not help. False alarms or incidental findings can lead to unnecessary treatments or emotional distress. Plus, many patients may start treatment for a recurrence earlier than needed, affecting their quality of life.

Blood-based tests for detecting cancer DNA are also being promoted, but we still do not know if they actually help people live longer or better. Meanwhile, some cancers, like prostate or thyroid, already have very high long-term survival rates, and frequent testing may offer



little benefit.

Experts now say that less surveillance may be better—especially if the patient has no symptoms. What is truly important is more research and honest conversations between doctors and patients about the real risks and benefits.

SOURCE: THE NEW ENGLAND JOURNAL OF MEDICINE

Thyroid nodules treated without surgery or scars — just a needle

DR MD KAMRUL AZAD

A 46-year-old woman came to my chamber with muscle cramps, tingling in her hands, and a strange twisting of her fingers. She looked worried and said these symptoms started slowly but later affecting her daily life. On examination, I noticed a large scar on the front of her neck. When I asked, she told me that she had undergone total thyroid surgery two years ago to remove a nodule. Since then, her problems had only increased. She had to take calcium injections repeatedly and swallow 6 to 8 calcium tablets daily. Her voice had changed after surgery, and she now depended on a lifelong thyroid hormone pill to survive.

As I checked her further, simple tests showed signs of low calcium in her body. She was suffering from a condition called hypocalcemic tetany—caused when the small parathyroid glands are accidentally removed or damaged during thyroid surgery.

Sadly, I see many such patients who come with scars, weak voices, repeated hospital visits, and constant medication needs. Most of them went through surgery without knowing that there was another way—a better, safer option now available in Bangladesh.

That option is called radiofrequency ablation, or RFA. This is a modern, non-surgical treatment for thyroid nodules or tumours. Instead of cutting the neck and removing the thyroid, RFA uses heat energy through a thin needle to destroy only the part of the thyroid that has the problem. It is done under ultrasound guidance to ensure accuracy. The healthy part of the thyroid is left untouched, and the whole procedure takes just 30 to 40 minutes. Patients can go home the same day without needing admission, stitches, or general anaesthesia.

Unlike surgery, RFA does not leave a visible scar, and there is little to no pain. Most patients do not need lifelong thyroid hormone pills or calcium supplements after the procedure. Recovery is quick, and the cost is also lower than traditional surgery. Over time, the size of the thyroid nodule shrinks significantly—up to 93% in some cases. For those with hormone-producing nodules, hormone levels return to normal in over 80% of patients within months. This method is especially effective in Asian populations like ours.

The mentioned patient's story is not just her story—it is a reflection of many others who suffered after thyroid surgery simply because a safer, less painful method was not known or not available at the time. But now, with RFA available in Bangladesh, patients no longer need to live with scars, voice changes, or a lifetime of pills. This technology is time-demanding and necessary for our population, especially where thyroid problems are common. Early awareness and the right decision can save people from unnecessary suffering. Now is the time to embrace modern thyroid care.

The writer is the head of the Department of Endocrinology at the Sharkari Karmachari Hospital, Fulbaria, Dhaka.

