

## Women with low vitamin D levels have small infants

Pregnant women with relatively low amounts of vitamin D in their diets tend to give birth to smaller infants, a new study suggests.

Canadian researchers found that pregnant women who drank little milk or had a lower vitamin D intake tended to have smaller babies than women with higher intakes. Fortified milk is a primary source of vitamin D.

"Absence of vitamin D seems to be what's driving this," study co-author Dr Kristine G Koski, of McGill University in Montreal, told.

What's more, the study suggests, vitamin D deficiency is not required to potentially affect fetal growth.

Although vitamin D intake was lower among women who avoided milk, it was still, on average, within the recommended range. This suggests that pregnant women need more than the current "adequate" intake level for vitamin D - 5 micrograms for adults age 50 and younger, Koski said.

Vitamin D may be best known for its role in bone health, but it is also believed to be important in immune system function and growth and cell maturation, among other jobs.

There has been little research, however, into women's vitamin D needs during pregnancy. The adequate level set for all younger adults is based on decades-

old research on the amount of vitamin D necessary to prevent the bone disease rickets.

The study included 279 pregnant women who were interviewed several times about their diet and use of vitamin and mineral supplements. Seventy-two women restricted milk intake, while the rest did not restrict their consumption.

On average, the researchers found, infants born to women who drank less than one cup of milk per day were more than 4 ounces lighter than newborns whose mothers drank more milk.

Neither protein nor calcium - two key nutrients in milk - predicted birthweight. But vitamin D intake did, with each extra microgram translating into a small gain in newborn weight.

Women who don't drink milk, Koski said, should be sure to get vitamin D from supplements and other foods that are fortified with the vitamin, such as certain brands of breakfast cereal, soy milk and margarine.

The findings also support calls from some experts that North American officials reconsider their definition of adequate vitamin D intake - as has been done in Europe, according to Koski and her colleagues.

Source: Canadian Medical Association Journal

## RESEARCH UPDATE

### Antihistamine could fight malaria

REUTERS, Washington

An allergy drug pulled off the market in 1999 could work to treat malaria, US researchers reported recently.

The drug called astemizole can kill the *Plasmodium falciparum* parasite that causes malaria.

Researchers from the Johns Hopkins University Schools of Medicine and Public Health tested astemizole in test tubes and in mice. Moderate doses reduced the numbers of Plasmodium parasites by 80 percent in mice whose infection also could be affected by the malaria drug chloroquine.

In mice resistant to chloroquine, the antihistamine reduced parasite numbers by 40 percent.

The best treatment is with compounds known as artemisinins. They have been shown to reduce deaths from malaria by up to 30 percent if used properly and can cure falciparum malaria in seven days. In combination with

other drugs they can do the job in three days.

Yet many countries still use older, much less effective drugs because the newer drugs are not available and are expensive.

For their study, Sullivan's team screened 2,687 known drugs for potential effectiveness in killing Plasmodium and found that astemizole was one of the more promising.

Janssen withdrew astemizole from the US and European markets in 1999 after warnings about the drug's safety. It could cause rare, but life-threatening heart arrhythmias when patients took an overdose or with drugs that affected its metabolism.

But similar arrhythmias are reported with existing malaria drugs and other antihistamines now sold over the counter. Astemizole is still used in 30 countries, including Cambodia, Thailand and Vietnam where malaria is endemic, the researchers said.

### Yellow or amber-tinted sunglasses safer



REUTERS, New York

When picking out a pair of sunglasses, it is best to avoid blue-tinted lenses and instead to choose yellow- or amber-tinted lenses, advises an eye researcher.

"Yellow- and amber-tinted sunglasses filter out blue light, reducing the amount of blue light getting to your eye," Dr Janet Sparrow, professor of ophthalmic science at Columbia University Medical Center in New York explained.

Sparrow is researching blue light exposure from sunlight as one of the causes of age-related macular degeneration, a degenerative eye disorder that is the leading cause of blindness in the elderly. "There are compounds that accumulate in some retinal cells with age and these compounds are light-sensitive," Sparrow said. Blue light excites these retinal cell compounds, fueling the release of harmful free radicals.

"We see light as white, but contained in that white light are actually different colors of light, like the colors of the

rainbow and the wavelengths in the blue portion of the spectrum are able to maximally excite these compounds and imitate oxidative processes that can damage retinal cells," Sparrow further explained.

Therefore, most people, Sparrow said, regardless of age, should avoid blue-tinted sunglasses. "A blue lens actually selects out blue light, which is not good - you want to diminish the blue light. A yellow lens filters blue light, so a yellow lens would reduce blue and that's what you want."

Dark-tinted lenses are also a good choice in sunglasses, Sparrow said, because they decrease exposure to all colors of light.

Sparrow also reminds outdoor enthusiasts to be sure to buy UV-blocking sunglasses. "Not all sunglasses block UV light, so it's important to buy sunglasses that have been tested for UV blocking capability and they really should block all UV light," she said. "UV blockers have no color to them, they are just a type of glass that blocks UV light," she explained.

## PUBLIC HEALTH AWARENESS

### Addressing three reasons that cause maternal death

AM ZAKIR HUSSAIN

Obstructed labor, hemorrhage, eclampsia and abortion are responsible jointly at least for 90 percent of deaths among pregnant women in our country. Meeting the gap between the felt needs and provision of contraception (which is 11 percent at present), will prevent abortion deaths to a large extent. Interventions are available, but not accessible largely to prevent or manage obstructed labor, toxemia (condition which can affect pregnant women towards the end of pregnancy, where the patient develops high blood pressure and passes protein in the urine) and hemorrhage.

15 percent of the pregnant women are at risk of getting their pregnancy complicated at any stage, which is however, unpredictable. 5 percent of them would require a caesarian operation to save lives. Adequate and appropriate ante-natal and post-natal care can detect these problems for their timely management. The most crucial intervention is to ensure and facilitate antenatal and postnatal care for them.

Inaccessibility, and also, unavailability of services are caused or compounded by delays at three stages due to familial, social, infrastructural and provider barriers. One is delay in taking decision in the family to seek service in pregnancy. This is governed by family and social norms, practices and customs. To address this a strong all out communication and advocacy is needed among the family decision makers and opinion leaders.

The second delay is in arranging transports. This may be a sequel of delayed decision, e.g., decision taken when the condition is precarious at the dead of night in a remote village, far from a health facility, without any proper transportation and communication system. This may be ameliorated if services are sought in time and preemptive arrangements are in place. This second delay therefore is the easiest to manage.

The third delay relates to availability of services. This may happen when the health facility is incapable of providing the required services due to the lack of manpower, skill, medicine, blood or equipment. Lack of knowledge on the part of the service seeker about the type and degree of services available in a given health facility is one unfortunate reason. Despite no apparent reason, the attitude of service providers may be a stumbling block itself that may be solved through incentives which would keep the service provider's interest of serving the people alive. It is only humane that at least the good performers are rewarded and honored, if the reverse is not possible as well, i.e. unscrupulous cannot be punished for the lack of political understanding.

The delay in decision making at home hinges on the anthropological



background of the society. Women are to be meek, submissive, subservient, tolerant, soft and caring and should not complain about their discomfort. So women traditionally, shy away from venting their agonies until unbearable and already late. Decision is then taken by those who themselves would be least affected by the outcome of the decision and who would cling to their age-old beliefs and practices. Wrong decision needs to be countered with hard facts. This means that the advocates and communicators have to be sufficiently empowered. Communication is more effective when it is provided in a community as a group, to reap the benefit of social dynamics, which facilitates reinforcement of positive group thoughts, which might roll down to the formation of community support groups, that would influence family decisions and create other support bases. Motivation alone however, will not be all effective, since there are economic reasons of delay in service seeking. A piloting of a demand side financing (voucher) scheme for availing maternal services is being implemented by Ministry of Health & Family Welfare. This may fill up the void that exists now in service seeking behavior of the poor.

People in rural areas are cash starved to pay for transportation or medical supplies in emergency situation. There are examples, in different parts of the country, of how the problem may be managed, e.g. CARE Dinajpur project on safe motherhood that has been scaled up to Sylhet. The scaling up experience of this project is also applicable in other settings of the country. Thana Functional Improvement Pilot Project also showed how locally managed and locally appropriate transports may be made available in emergency situations. Urban Primary Health Care Project of Ministry of Local Government, Rural Development & Cooperatives has experience of enlisting volunteers for emergency blood donation. Other similar experiences exist in the country, that may be replicated to address the second delay.

Demand creation will be futile if the demand cannot be met. The demand will soon die down. Making the required services available first of all should therefore be the

fundamental move to make people seek services. This would need availability of trained and committed service providers and logistics supported with good governance, at effective levels. Past experience teaches us that an effective option to this end would be to go for need and competency based training, prioritising those who would stay in their place of posting, after training. The present practices of undertakings to keep trained personnel in their place of posting for certain period of time, after training, has not worked, nor there is any proof in the horizon that it will work in near future. Adoption of the suggested approach will be facilitated if the present rules of medical practices, that have been framed for the developed countries by the experts of the developed countries, are modified to suit the situations in the rural areas of the developing countries, e.g. training of graduate nurses to work as anesthetic para-medics, to work in absence of a trained physician anesthetists, if required. This would ease the problem of unavailability of a team of physicians required to provide comprehensive emergency obstetric care in an upazila health complexes, as happens now.

When supply of logistics does not commensurate with a training or availability of trained staff, the steam that is generated by training evaporates quickly. Secondly if the services are made available late into the mandatory period of stay of a trained staff, a seed of demand which is just sown, would die fast, as the staff would leave before it takes root, not to re-ignite in foreseeable time; as the breaching of the trust of rural folks takes time to get restored. The beauty of sustained demand generation is that it is self-perpetual; beneficiaries can be mobilised relatively easily to work around the problem of non availability of service providers, in case such a situation arises, e.g. recruiting community paid health providers.

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## CHILDHOOD OBESITY

### Making weight loss a family affair

STAR HEALTH DESK

Children cannot change their exercise and eating habits by themselves. They need the help and support of their families and other caregivers. This is why successful prevention and treatment of childhood obesity starts at home.

Childhood obesity is usually caused by kids eating too much and exercising too little. So creating new family habits around healthy eating and increased physical activity can help a child lose weight and can also improve the health of other members of the family.

**Change family behaviors**  
Many behaviors contribute to childhood obesity, whether it is the time spent in front of the TV or computer or the types and amounts of food eaten. These behaviors or habits are hard to change within a family, especially if members are not ready, willing or able to make changes. Small, progressive steps can help. Keep in mind the following helpful hints.

- It is not a race. The first rule of change is to not make changes too quickly. It takes time and dedication to unlearn unhealthy behaviors and to develop new, healthy ones.
- Think small. Small, gradual changes are easiest to follow and incorporate into your daily lives. And small changes can make a big difference over time. Pick a few small changes that seem doable, for example, turning off the TV during dinner, switching from soda pop to milk or water, or taking a walk after dinner once a week.

- Set individual and family goals. Goals need to be achievable and measurable. Set specific goals for each family member, and then determine family goals. For example, your child's goal might be to eat fresh fruits and vegetables for afternoon snacks, and the family's goal might be to eat out at a fast-food restaurant only once a month.

#### Create a healthy-weight environment

As you work toward healthy habits and behaviors, create a home environment that supports these efforts. For example, make sure healthy foods are readily available. Serve fruits and vegetables with meals and remove high-calorie, high-fat foods from the home, buying them just occasionally.

A healthy-weight environment also means that exercise and physical activity are built into the day's routine. Encouraging the kids to play outside to ride bike or play outdoor games with friends, for example - is a good way to keep kids active. Organise family outings that involve physical activity, such as walking or playing at a park.

Other ways to create a healthy-weight environment:

- Remove sugar-sweetened drinks from the home.
- Offer more whole-grain foods with meals and snacks.
- Reduce the number of meals eaten out at fast-food and other restaurants.
- Sit down together for family meals and have that meal last at least 30 minutes.



## Banishing bad breath

TAREQ SALAHUDDIN

You lean over to whisper something to your friend and you can tell by the look on your friend's face that something is up. Could it be your breath? Maybe you should not have put extra onions on your fast food at lunch.

The good news is that bad breath happens to everyone once in a while. Let us find out how to detect it, prevent it, and even treat it.

**What is that smell?**  
Bad breath is the common name for the medical condition known as halitosis. There are many different things that can cause halitosis - from not brushing your teeth to certain medical conditions.

Sometimes, a person's bad breath can blow you away - and he or she may not realise there is a problem. There are tactful (nice) ways of letting a person know that he or she has bad breath. You could offer mints or sugarless gum without having to say anything.

If you need to tell a friend he or she has bad breath, you could say that you understand foods can cause bad breath because you have had it before yourself. By letting someone know that bad breath is not something unusual, you will make the person feel more

comfortable and less embarrassed about accepting your piece of chewing gum.

If you suspect your own breath is foul, ask someone who will give you an honest answer without making fun of you. Although everyone gets bad breath sometimes, if you have bad breath a lot, you may need to visit a dentist or doctor.

**What causes bad breath?**  
Here are three common causes of bad breath:

1. foods and drinks, such as garlic, onions, cheese, orange juice, and soda
2. poor dental hygiene, meaning you don't brush and floss as you should
3. smoking and other tobacco use

Poor oral hygiene leads to bad breath because when you leave food particles in your mouth, these pieces of food can rot and start to smell. The food particles may begin to collect bacteria, which can be smelly, too. Plus, by not brushing your teeth regularly, plaque (a sticky, colorless film) builds up on your teeth. Plaque is a great place for bacteria to live and yet another reason why breath can turn foul.

**Preventing smelly breath**  
Don't smoke or use tobacco products, of course. And take care of

your mouth by brushing your teeth at least twice a day and flossing once a day. Brush your tongue, too, because bacteria can grow there. Flossing once a day helps get rid of particles wedged between your teeth. Also, visit your dentist twice a year for regular checkups and cleanings.

If you are concerned about bad breath, tell a doctor or dentist. But don't be surprised if he or she leans in and take a big whiff! Smell is one way doctors and dentists can help figure out what is causing the problem. The way a person's breath smells can be a clue to what is wrong. For instance, if someone has uncontrolled diabetes, his or her breath might smell like acetone (the same stuff that is in nail polish remover).

You may have bad breath all the time and the reason may not be determined by a dentist. Because, some other pathological condition may cause the problem. Sometimes sinus problems, and rarely liver or kidney problems, can cause bad breath.

Usually, there is a less complicated reason for a person's bad breath - like what you had for lunch. So keep up with your brushing and flossing and you should be breathing easy - and odor free!

## Statistics on reproductive health

Half of the world's people are under the age of 25. Some three billion children and young people are, or will soon be, of reproductive age.	Universal access to reproductive health, including family planning, is the starting point for a better future for the 1.5 billion young people (ages 10 to 24) who live in developing countries.	In 57 developing countries, over 40 per cent of the population is under 15.	The number of youth in the world surviving on less than a dollar a day in 2000 was an estimated 238 million, almost a quarter (22.5 per cent) of the world's total youth population.	Despite a shift toward later marriage in many parts of the world, 82 million girls in developing countries who are now aged 10 to 17 will be married before their 18th birthday.
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Source: WHO



## Your Doctor



**Prof Dr M Amjad Hossain**  
Head, Department of Orthopaedics & Trauma Surgery  
Dhaka Medical College

*Dear Doctor, My doctor says I have degenerative changes in my spine. What does that mean? Is it arthritis?*

Regards,  
Milon Mahmud  
Dhaka

**Answer:**  
The phrase "degenerative changes in the spine" refers to osteoarthritis of the spine. Osteoarthritis is the most common form of arthritis. Doctors may also refer to it as degenerative arthritis or degenerative joint disease.

Osteoarthritis may affect any joint in your body. When it affects your back, it causes slow deteriora-

tion of the disks between the bones (vertebrae) in your spine. This results in narrowing of the spaces between the vertebrae. Bone spurs often form. When bone surfaces rub together, the vertebral joints (facets) and areas around the cartilage become inflamed and painful. Gradually, your spine stiffens and loses flexibility. Once these changes appear on X-rays, osteoarthritis has already started.

If you have osteoarthritis, your doctor will work with you to develop a treatment and pain management plan, which may include exercise, medications and measures to protect your

joints. Your doctor may also refer you to a rheumatologist, physical therapist or orthopedic surgeon.

*Dear Doctor I take a nonsteroidal anti-inflammatory drug (NSAID) ibuprofen daily for arthritis in my hands. I am a young man - 27 years old. I don't like taking so much medication, and I am wondering if I can cut back and only take medication on days that I have pain.*

**Answer:**  
Please, suggest me a solution.  
Best regards -  
Rongon  
Chittagong

If you are using an over-the-counter medication, such as ibuprofen, you can generally adjust the amount you are taking to match your level of pain. This is especially true if the severity of your pain varies. For example, some people experience a flare of arthritis symptoms after increased physical activity. Using the full recommended dose of a medication for several days should help decrease pain and inflammation. When symptoms improve, you can cut back to one or two tablets every few days. If your symptoms don't recur, you can stop taking the medication and just take it when you need it.

On the other hand, if your arthritis symptoms are more constant, you may find that staying on a set dosage of the medication all the time provides maximum relief of symptoms. This is because nonsteroidal anti-inflammatory drugs (NSAIDs) must be taken for several days to achieve a consistent and adequate level of medication in your blood. For this reason, taking an NSAID only when you have pain won't be as effective as taking the medication on a regular basis.

If you are taking a prescription arthritis medication, discuss any possible dosage adjustments with your doctor.