

Pregnant women at greater risk for Hepatitis E

STAR HEALTH REPORT

Researchers from the Johns Hopkins Bloomberg School of Public Health have found a link between pre-existing nutritional deficits and immune dysfunction and the risk of hepatitis E infection during pregnancy.

Hepatitis E, a virus that is largely transmitted through contaminated drinking water, can be particularly deadly in pregnant women. As many as 30% of pregnant women who contract hepatitis E die from the infection compared with an overall mortality rate of between 0.5-2%.

Hepatitis E is likely responsible for as many as 10% of maternal deaths in South East Asia.

The study, published on January 6 in the journal American Society of Tropical Medicine and Hygiene, is thought to be the first to identify pre-existing characteristics that lead to an increased risk of hepatitis E infection.

"For decades, we've been asking why pregnant women who get hepatitis E die at an alarming rate. This research suggests that pre-existing differences could be the key we've been seeking," says study leader Alain Labrique, PhD,

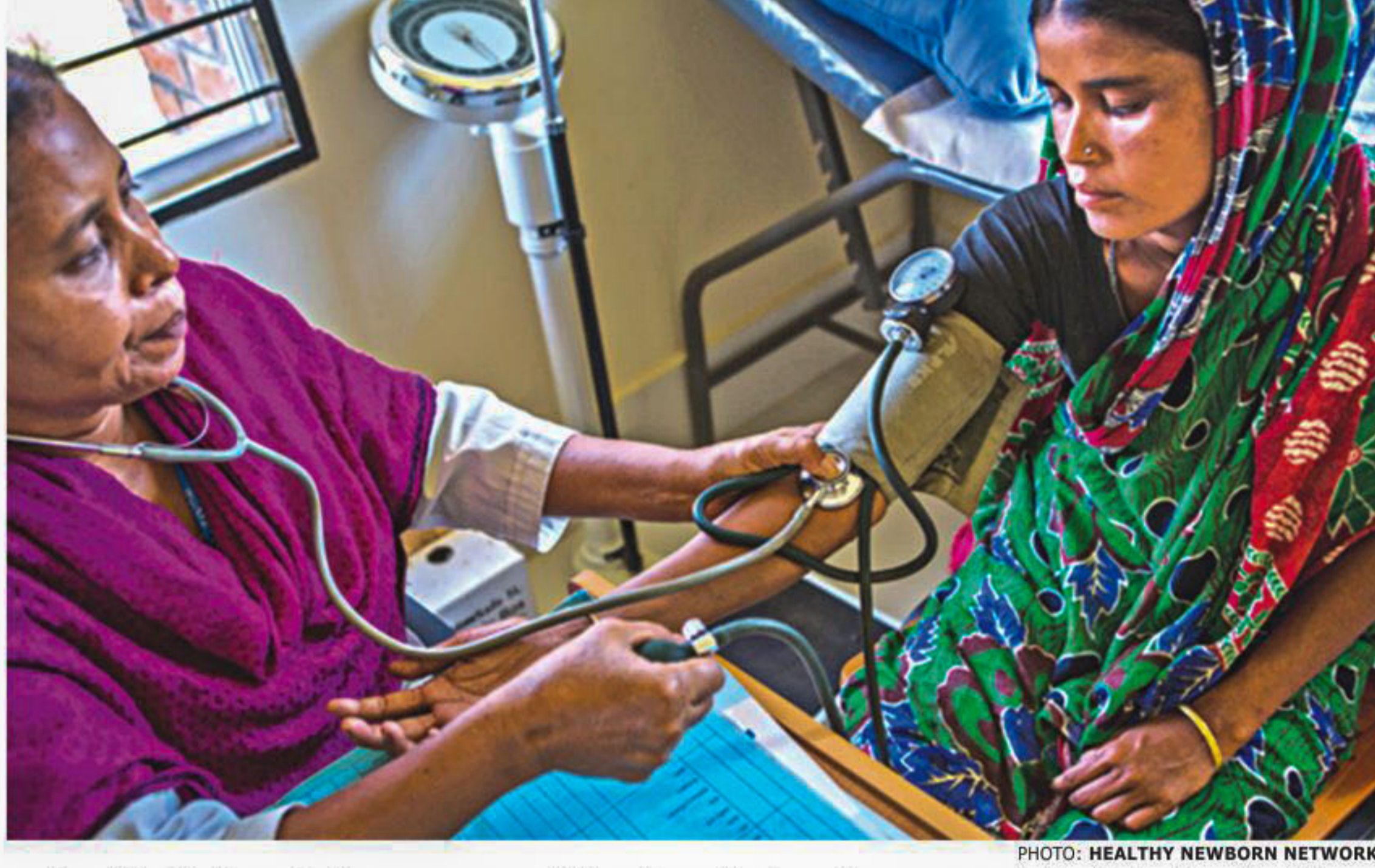


PHOTO: HEALTHY NEWBORN NETWORK

an Associate Professor in the Bloomberg School's Department of International Health.

"Even though women are exposed to similar environmental risk factors, the differences in pre-existing characteristics seem to put some women at a much higher risk of getting infected, sick and dying. These findings could pave the road for stepped-

up nutritional monitoring of pregnant women in this part of the world and lead to recommendations for nutritional supplements."

Researchers found that anemia occurred in nearly three times the number of women who became infected compared to those who didn't (27.5% versus 10%). 45% of infected women had a body

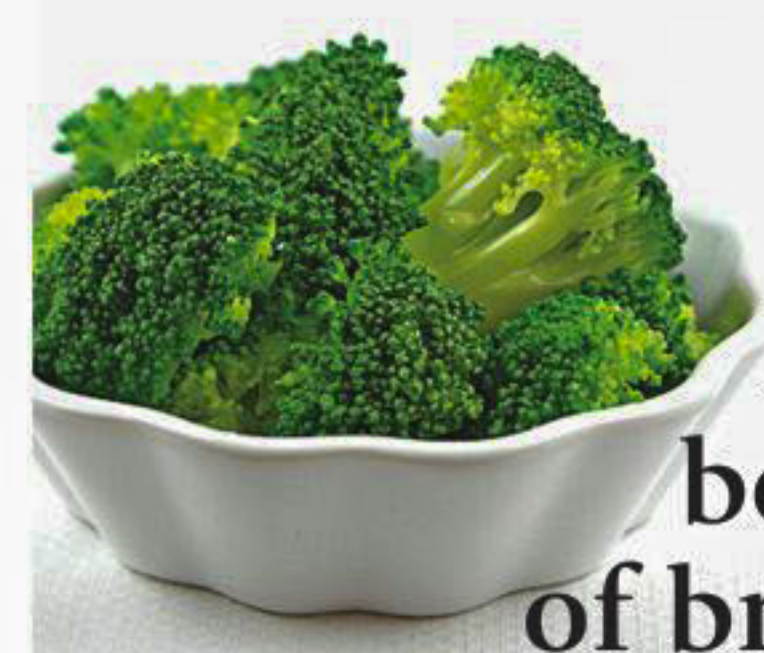
mass index that categorised them as underweight compared to a quarter of the control group. Researchers also found that women who were vitamin-D deficient and who had lower levels of zinc were more likely to be infected than the control group of pregnant women at a similar risk level who did not become infected with the virus.

95% of the women who became infected were vitamin-D deficient in the first trimester compared to 82.5% of the control group. In the third trimester, 17.5% of women were zinc-deficient compared to only 2.5% of the control group.

The study, which was conducted at the Bloomberg School's flagship Jivita Research Project in Bangladesh, also found that women who became infected had higher levels of both pro- and anti-inflammatory cytokines, important to immune system functioning. This suggests that pre-existing immune dysfunction may also increase the risk of getting hepatitis E or other infectious diseases.

"Most of the current knowledge about how hepatitis E affects pregnant women comes from studies looking at women who are already infected," says Labrique. "This population-based study was able to look at the health status of pregnant women before they became infected. If we can better understand what predisposes pregnant women to infection we could also develop better programs that prevent infection from ever occurring."

HEALTH TIPS



Five health benefits of broccoli

Your parents knew what was up when they told you to eat your broccoli. This verdant vegetable is a powerhouse of nutrients. It is reputed to benefit the cardiovascular system, immune system and to have anti-inflammatory and even cancer-preventing properties. It is also a fat-free vegetable.

Here are the top 5 health benefits of broccoli:

- 1. Cancer prevention:** Consumption of broccoli may prevent cancer. Broccoli is a cruciferous vegetable, and all vegetables in this group may be protective against some stomach and intestinal cancers.
- 2. Cholesterol reduction:** Broccoli can help lower cholesterol because the soluble fiber in the vegetable binds with the cholesterol in the blood. This binding makes the cholesterol easier to excrete, and consequently lessens cholesterol levels in the body.
- 3. Detoxification:** Phytochemicals glucoraphanin, gluconasturtiin and glucobrassicin compose a terrific trio in broccoli. Together, they aid all steps of the body's detoxification process, from activation to neutralisation and elimination of contaminants.
- 4. Heart health:** In addition to reducing cholesterol, broccoli can aid in heart health by helping to keep blood vessels strong. The sulforaphane in broccoli is also an anti-inflammatory and may be able to prevent or reverse damage to blood vessel linings caused by chronic blood sugar problems.
- 5. Anti-inflammatory benefits:** Broccoli is a great anti-inflammatory and may slow down the damage to joints associated with osteoarthritis.

HEALTH bulletin

Autistic children & their world: importance of sensory park



Pattern of brain chatter clue to anaesthesia response

Taking readings of brain activity before patients go for surgery could help doctors give a more accurate dose of anaesthetic, researchers suggest.

At present, a patient's body weight is the main factor in deciding the dose. But a University of Cambridge study indicated people with high levels of brain connectivity or "chatter" needed a larger dose to put them under. And this could help doctors work out exactly the amount of anaesthetic a patient requires to become unconscious.

The study, published in PLOS Computational Biology, looked at how the brain's electric signals changed in 20 healthy volunteers given a common anaesthetic called propofol. They were then asked to press different buttons when they heard different sounds. After reaching the maximum dose, some were still pressing buttons, while others were unconscious.

The "chatter" or connectivity between areas of the brain was much more pronounced in those who were still conscious. And when the research team looked at brain activity when the participants were awake, using readings from an electroencephalogram (EEG), they found similar differences.

RABEYA FERDOUS

Autism is now becoming a familiar condition in Bangladesh. The total numbers of autistic children are increasing day by day. According to Ministry of Social Welfare, the total number of persons with ASDs (Autism Spectrum Disorders) could be as high as 1.4 million. In this situation we need to spread out our thinking about their treatment and other facilities. Sensory park or sensory garden is the natural treatment for autism children.

The word 'autism' comes from the Greek word 'autos', meaning 'self'. The term describes conditions in which a person is removed from social interaction — hence, an isolated self. Autistic children have their own world. They like to live in their world and don't cope with others.

Sensory integration is defined as the ability to feel, understand and organise sensory information from the body and environment. The issues surrounding sensory integration are reflected in both hypersensitive and hyposensitive reactions by children with ASD to the vestibular, proprioception, visual, audio, tactile and olfactory senses.

The main problem of autism is the sensory processing disorder. That time their sensory system does not work appropriately. That is why they show different abnormal behaviour. Sensory describes something relating to sensation — something that you feel with your physi-

cal senses. When we grasp a lemon that time we can realise that it is a lemon by seeing, touching, smelling and sometimes by tasting. So here tactile, olfactory, gustatory and visual senses are helping us to identify a lemon. This identifying process is organised by our brain. When this processing has difficulties then children may show unusual behaviour.

A sensory park may help to facilitate the normal development of sensory system. As more and more children are diagnosed with ASD, the need for a sensory garden designed specifically for their use and based on the research in the preceding sections seems appropriate.

General guidelines for developing this garden are found in the sensory integrative issues of ASD and include the need for a stimulating

space for hypo-reactive children and a calming space for children that are hyper-reactive.

Accepting that simply being in a natural setting promotes general health and well being, a garden setting is appropriate and would allow children with ASD to experience and explore nature while finding specific areas which simply feel good for them to be in.

In Bangladesh, we have many parks. In these parks if we allocate some space for sensory garden then it will be more helpful for the autistic children. So the government needs to visualise this issue and act accordingly.

The writer is a Clinical Occupational Therapist at Centre for the Rehabilitation of the Paralyzed (CRP). Email: rabeya1988@gmail.com



Workshop and seminar on musculo-skeletal disorders held at AIUB

The department of Public Health of American International University - Bangladesh (AIUB) organised a day long workshop and seminar for physiotherapists titled 'Musculo Skeletal Disorders in the Workplace including Low Back Pain - Prevention and Treatment' on January 15, 2016 at the AIUB auditorium — says a press release.

Prof. Dr. Tofazzal Hossain (Vice President, Academics) and Prof. Tajul Islam (Dean, Faculty of Arts and Social Sciences) declared the opening of the workshop with the presence of Dr. Mohammad Sadiqur Rahman (Director, Central Police Hospital) as the Chief Guest. The key speaker of the programme was Dr. Valerie Ann Taylor, Founder and Coordinator, CRP. After her introductory speech and presentation Prof. Md. Sohrab Hossain carried on with the workshop and taught the participants various dimensions of physiotherapy.

The seminar was carried out by Abu Muhammad Musa and Dr. Md. Azizul Islam where the participants were informed about the scopes and benefits that a masters in public health brings to the physiotherapists and how they can build a career in the public health field coming from such a background.



6 tips to get relief from joint pain in WINTER

- DRESS WARMLY**
It it's cold outside, keep aching hands warm with gloves, and add extra layers over knees & legs
- HYDRATE**
Even mild dehydration might make you more sensitive to pain, according to study results published in the September 2015
- LOSE WEIGHT**
A 2013 article in the Journal of the American Medical Association (JAMA) highlighted the significant improvement people with knee arthritis can get from weight loss, from diet, & exercise
- ADD FISH OIL**
The Arthritis Foundation recommends up to 2.6 grams of fish oil capsules twice a day. Make sure to let your doctor know if you try omega-3s, as they can increase the risk for bruising or bleeding
- GET A MASSAGE**
Getting an hour long massage once a week for at least eight weeks was shown to reduce pain, according to research in the June 2015
- LET WARM WATER COMFORT YOU**
Swimming in a heated pool is both great exercise & soothing to joints. You can also get relief from warm baths, according to the Arthritis Foundation.

