



Back pain and your position

The complaint of low back pain is a common medical problem. Pain is an important indicator of sickness. Although it can be a frustrating problem, but most episodes of back pain resolve.

Doctors at the woodland hospital (Scotland) are using a new form of magnetic resonance imaging (MRI) to show that sitting in an upright position places unnecessary strain on back, leading to potentially chronic pain problems if you spend long hours sitting.

According to Dr Waseem Amir Bashir, author and clinical fellow in the Department of Radiology and Diagnostic Imaging at the University of Alberta Hospital, (Canada), 'a 135-degree body-thigh sitting posture was demonstrated to be the best biomechanical sitting position, as opposed to a 90-degree posture, which most people consider normal'. He found that sitting in a sound anatomic position is essential, since the strain put on the spine and its associated ligaments over time can lead to pain, deformity and chronic illness.

When there is pain, the best position for relief is to lie on your back on the floor with pillows under your knees, with your hips and knees bent and your feet on a chair, or just with your hips and knees bent. This takes the pressure and weight off your back. It is better to take 1 or 2 days of this sort of rest. Resting longer than this can cause muscles to weaken, which may slow the recovery. According to some researchers, even if it hurts, walk around for a few minutes every hour.

Understanding the root cause of back pain is the key to right treatment. While talking about the list of causes, we often think about arthritis, osteoporosis or injury related or getting old age. We also talk about muscle strain or sprains of ligaments (which attach bone to bone), swollen joints or a 'slipped disk'. But there could be something else; like prostate cancer, pancreatic cancer and kidney stones. There can be back pain also due to bone cancer or chronic autoimmune disease.

The most common cause is using your back muscles in activities you are not used to, like lifting heavy furniture or boxes. So, do not lift by bending over. Lift an object by bending your knees and squatting to pick up the

Infertility: The pain and the hope

DR FATIMA MOMTAZ
 At least 15 percent of couples usually experience some degree of infertility with all of its feelings and frustrations at some point in their life. This issue is not less important than our problem regarding over crowded population.

Today, more women and men seeking treatment for infertility are educated and established group of the society. Now-a-days, more women postpone marriage and childbearing until they are in around 30s or even later in mid 30s due to their career — which has contributed the situation.

Lack of knowledge about infertility could also be a potential risk factors. So, it is important for both partners to understand the problems, the treatment that could be offered in the light of current advancement of reproductive science all over the world and issues related to this.

Medical problems
 Many couples who are unable to conceive easily may have a specific problem hindering their ability to conceive. In a country like Bangladesh, the common attitude is to blame the female partner.

But practical scenario is quite interesting all over the world, attributing 30% problem to the male; 30% to the female. In about

20% cases fertility problem is traced to the both partners. Even after exhaustive testing, the rest 20% remains unexplained.

Treatments

Recent advancement of infertility treatment falls into six basic areas.

1. Hormonal Therapy
2. Surgical procedure and microsurgery
3. Artificial insemination
 - Intrauterine insemination (IUI)
 - Gamete intra-fallopian transfer (GIFT)
 - Micro-injection intra-fallopian transfer (MIFT)
4. Assisted reproductive technology (ART)
 - In-vitro fertilization & embryo transfer (IVF-ET)
 - Intracytoplasmic sperm injection and embryo transfer (ICSI-ET)
5. Cryopreservation (preservation of embryo/sperm in liquid Nitrogen for long time)
- Slow-cooling (Embryo/sperm freezing by low speed of cooling for subsequent use)
- Vitrification (Embryo/sperm freezing by ultra-rapid speed of cooling)
6. Pre-implantation genetic diagnosis (PGD)

In Bangladesh few of our prom-



inent physicians have been offering medical and some degree of microsurgical treatments since 1990.

It is a matter of hope that ART treatment has been started by very few private practitioners and IUI is the most commonly used treatment option at this moment in Bangladesh.

However, the initiatives for fighting against, if medical and surgical treatment have been failed to bring successful outcome, are almost in primitive stage.

IUI (In vivo fertilisation-fertilisation inside the body)

Couple with moderate male factor infertility may respond well to artificial insemination. This procedure is also effective to treat infertility caused by cervical mucus problem or immunological factors in the women.

In this technique, ovaries are stimulated by drugs to release 2-3 eggs in the tubes and sperm is prepared using simple centrifuge machine. Thus concentration and motility improves. Usually

0.2µl-2ml of prepared sperm is inserted into the uterus per-vaginally using insemination catheter. Generally accepted pregnancy rate per cycle by this technique is 10-20%.

IVF (In vitro fertilisation)

There are several procedures designed to unite sperm and eggs, and collectively they are called ART.

IVF is the first ART, developed and most commonly used since 1978. This technique is highly effective in overcoming a variety of infertility issues, particularly in tubal dysfunction.

It is a four-stage procedure. Stage1: Controlled ovarian hyper-stimulation is used to stimulate the development of multiple follicles (2-40), to promote final maturation, and release of the eggs.

Stage2: Eggs are retrieved per-vaginally under ultrasonic guidance. Stage3: Eggs are transferred to the laboratory where they are fertilised by the prepared sperm collected freshly from husband or from previously frozen sperm.

Stage4: After fertilisation eggs become embryo and embryos are cultured in the sequential culture medium commonly up to 5 days till it forms blastocyst (when cavity appears inside the embryo). Then usually 1/2 embryos are transferred into the

uterus per-vaginally under ultrasonic guidance and rest are frozen by cryopreservation technique for future use if the women fail to become pregnant by fresh embryo.

ICSI (Intra-cytoplasmic sperm injection)

It is a micromanipulation technique, whereby a single sperm is immobilised, caught and injected into the egg. This procedure is indicated to overcome the male infertility, unexplained infertility or where sperm are unable to penetrate the egg wall. Other steps are same as IVF technique. This technique has a high fertilisation rate of about 80-90% and pregnancy rate of 40%.

PGD (Preimplantation genetic diagnosis)

1-2 cells from 3- or 5-day old embryo are collected and analysed using PCR (Polymeric Chain Reaction) technique or FISH (Fluorescent In-Situ Hybridisation) procedure commonly, to diagnose that whether particular embryo has any genetic disease or not. Subsequently only normal embryo is transferred into the uterus. However, this technique is highly expensive and offered only to the couples who have previously diagnosed genetic disease.

The writer is a Clinical Embryologist working in Australia.

Emili's dream comes true



3 months old Yousuf was born with cleft lip (a congenital deformity in face that leads to difficulty in feeding and makes susceptible to infections). But his family was unable to bear the expenses of the surgery that could correct his defect. Japan Bangladesh Friendship Hospital (JBFH) has recently organised a health camp at Madaripur district stadium where they identified Yousuf and offered the surgery free of cost. They provided healthcare by specialist physicians and teleconference for more than 1000 people at the camp. After surgical correction, Yousuf's mother is happy enough to see her child like other normal boy.

Simple ways to handle viral fever

MD RAJIB HOSSAIN

The soaring humidity level in monsoon attracts numerous virus making a suitable environment to spread rapidly.

Fever caused by viral infections (viral fever) has spurt in recent times. Physicians say that maintaining personal hygiene and following simple guideline for fever management help alleviate the condition.

"We are seeing lots of people of all age groups coming with high grade fever (103-105°F) in recent days. Besides high fever, nausea, vomiting and severe bodyache is a common symp-

tion rather than on laboratory investigations. And the management is also symptomatic, since antibiotics have almost no role here. The diagnosis is made by the typical history of fever with severe muscle and joint pains. Skin rash and lymph gland swellings have to be specifically looked for.

Laboratory investigations are undertaken to rule out other bacterial infections rather than to confirm viral fever. Confirmation of the fever is done by a culture of virus from the relevant specimens such as nasal swabs and skin rash or by increase in antibody levels in serial blood

Most viral fevers recover completely in a week although fatigue may persist for a few weeks more. There are not any substantial preventive measures as viral infection spreads mostly through droplet infections. They spread mostly in crowded places like offices, classrooms and play schools.

Simple tips to alleviate symptoms include:

- Take more rest.
- Sponge your body with tepid water several times a day.
- Stop smoking and avoid secondhand smoke, which can make cold symptoms worse.
- Drink lots of fluids like water, fruit juice and clear soups. Fluids help loosen mucus. Fluids are also important because they help prevent dehydration.
- Gargle with warm salt water a few times a day if you have a sore throat. Throat sprays or lozenges may also help relieve the pain.
- Avoid alcohol if you are alcoholic.
- Use nasal drops to help loosen mucus and moisten the tender skin in your nose.
- Antibiotics will not work against virus. So do not take antibiotics without a prescription.



tom. Some reported with watery nasal discharge, cough, shivering, skin rash and irritability and some with diarrhoea," informed Dr Harun-ur-Rashid Khan Rakib, Assistant Registrar of Medicine Unit-II of Mitford Hospital, Dhaka.

Most of them are not dangerous and are self-limiting. The fever disappears on its own by four to five days. Some are highly contagious. Special precaution should be taken to prevent any fatal condition.

The diagnosis of viral fevers is based on the clinical presenta-

tion. Treatment of viral fever is purely symptomatic. Medicines (mainly Paracetamol) are given to lower temperature and relieve body aches. Paracetamol Suppositories are helpful to lessen temperature in high fever. Bed rest and adequate fluid intake are advised. Nasal decongestants may be beneficial.

Complications of viral infections like pneumonia need to be addressed specifically. Symptoms of gastroenteritis should be managed with anti-motility agents.

DID YOU KNOW?

Menthol is used to hook young smokers

REUTERS, Chicago
 Tobacco companies manipulate the amount of menthol in cigarettes to make those first few

puffs more palatable to young smokers, U.S. researchers said in a finding that could fuel support for more tobacco regulation.

"Menthol stimulates the cooling receptors in the lung and oral pharynx," said Dr. Gregory Con-

nolly of the Harvard School of Public Health. "It makes smoking easier."

The study, published in the



companies R.J. Reynolds, Philip Morris and Lorillard disputed the findings.

"It would appear this report is simply an effort to push support for federal regulation of the tobacco industry, not a scientific review of the menthol category," said David Howard, a spokesman for R.J. Reynolds, a unit of Reynolds American Inc and maker of Camel and Kool cigarettes.

Lorillard Inc spokesman Michael Robinson said in a statement: "The American public should view this report for what it is, a politically motivated lobbying tool."

Smoking is the biggest so called legal cause of preventable death in the world.

Menthol cigarette brands have been rising in popularity with adolescents and the highest use has been among younger, newer smokers.

Connolly and colleagues studied internal company research on menthol use released as part of a large tobacco settlement. They also conducted independent laboratory tests and reviewed population studies on smoking trends.

American Journal of Public Health, comes as the U.S. Congress considers legislation that would give the Food and Drug Administration broad authority to regulate tobacco. Representatives of tobacco

10 facts on immunisation

1. About 10 million children under the age of five die every year worldwide. One quarter of these deaths are caused by diseases that can be prevented with vaccines.
2. Immunisation currently saves between 2 and 3 million lives per year. It is one of the most successful and cost-effective public health interventions.
3. In 2006, the number of children under the age of one vaccinated with diphtheria-tetanus-pertussis (DTP3) vaccine exceeded - for the first time -

- 100 million. These children are protected against infectious diseases that can have serious consequences like illness, disability or death.
4. But another 26 million children under the age of one did not receive the DTP3 vaccine doses in 2006. Three quarters of these unimmunised children live in 10 countries of Africa and Asia — Angola, Bangladesh, China, Democratic Republic of the Congo, Ethiopia, India, Indonesia, Niger, Nigeria and Pakistan.
5. On average 1.3 million

- infants and young children die every year from pneumococcal disease and rotavirus diarrhoea. A large number of these deaths can be prevented through vaccination.
6. Major breakthroughs are now occurring worldwide in the development of new vaccines. There are about 20 vaccines currently in use. Another 20 new or improved vaccines are expected to be available by 2015.
7. The Meningitis Vaccine Project is working on a new meningococcal vaccine. Meningitis A epidemics severely affect

- certain sub-Saharan countries. A first-generation malaria vaccine has also demonstrated some level of efficacy in young children and may be available by 2015.
8. Vaccination has led to measles being eliminated from the WHO Region of the Americas. Global measles mortality has decreased by 68% - from 757 000 deaths in 2000 to 242 000 deaths in 2006. The biggest improvement occurred in Africa, where number of deaths fell by 91% from about 396 000 to 36 000.
9. Since the launch of the

Global Polio Eradication Initiative in 1988, the worldwide incidence of poliomyelitis has dropped by 99%, from 350 000 cases reported in 1988 to 1 300 cases in 2007.

10. Immunisation not only protects children from vaccine-preventable diseases. It also serves as a means to deliver other life-saving measures, such as vitamin A supplements to prevent malnutrition, insecticide-treated nets for protection against malaria and deworming medicine for intestinal worms.

Source: World Health Organisation

TODAY'S EVENT

Workshop on joint replacement surgery in the city

United Hospital Limited has organised a scientific workshop on "Joint Replacement Surgery" today in their hospital, says a press release. Renowned orthopaedic surgeon Professor N S Laud, consultant of Shusrusha Citizen's Co-operative Hospital, Dadar and also Breach Candy Hospital & Research Center and Laud Clinic, Mumbai, India and Professor Harish Bhende, Course Director of National Orthoplasty Course, India will speak on joint replacement. Professor Shamsuddin Ahmed will be present as chairperson on the occasion. Interested doctors are invited to join the workshop.

