Star health

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World health day 2004: 7 March

Road traffic injuries are a deadly scourge, taking the lives of 1.2 million men, women and children around the world each year. Hundreds of thousands more are injured on our roads, some of whom become permanently disabled. The vast majority of these occur in developing countries, among pedestrians, cyclists, motorcyclists and users of public transport, many of whom would never be able to afford a private motor vehicle. The theme of World Health Day 2004 is 'Road safety is no accident'.

Source: http://www.who.int

Road safety is no accident

Road traffic injury prevention

A road traffic injury is any injury due to crashes originating, terminating or involving a vehicle partially or fully on a public highway.

Burden of disease

Road traffic injuries are the leading cause of death by injury and the 9th leading cause of all deaths worldwide. Road traffic injuries are projected to become the third leading cause of disability-adjusted life years lost worldwide by 2020, surpassed only by heart disease and major depression.

In 2000, about 1,2600,000 persons were are killed in road crashes. In addition 10-15 million people are injured every year in road traffic collisions. Of the 1.26 million annual deaths, with regional variations, viz. 35 percent occur in the World Health Organisation (WHO) Region of South East Asia, 24 percent in the Western Pacific, 13 percent in Africa, 11 percent in the Americas, 10 percent in Europe and 7 percent in the Eastern Mediterranean Region. About 90 percent of all road traffic injury deaths occur in the low- and middle-income countries.

Deaths from road traffic injuries account for 2.5 percent of the global mortality for all age groups. Over 50 percent of the global mortality due to road traffic injury occurs among young adults aged between 15-44 years. This represents a major loss of the much needed human resources and productivity. In some low and middle income countries, road crash victims occupy up to 10 percent of hospital beds.

Road traffic injuries cost countries between 1 and 2 percent of their Gross Domestic Product (GDP). Because so many road traffic victims are young adults at their most economically productive age, these tragic losses hold serious consequences for family life and the economy. In addition to the fatalities, even greater numbers of disabilities resulting from road crashes have exacerbated the aforementioned economic and social problems.

Risk factors

Crucial risk factors include:
λDriving under the influence of alcohol;
λSpeeding;
λUnderutilisation of safety devices such as seat belts, child restraints and helmets;
λ Poor road planning;
λUnsafe vehicle design;
λPoor implementation of road safety measures;
λPoor emergency health services.

Prevention

λSeatbelts
λChild restraints
λHelmets
λSpeed control
λAlcohol laws and enforcement
λImproved road design e.g. separation of vehicles
λImproved vehicle designs

These have proved successful in High Income Countries. However, few have been tested in Low- and Middle-Income countries. Because of the different traffic mixes in these countries, interventions need to be ADAPTED not ADOPTED.

Source: http://www.who.int

Current situation in Bangladesh

λ70 deaths per 10,000 vehicles

λFatality rate in Bangladesh is most severe in Asia and 40 times that of industrialised countries

λPedestrians are the ones that are most affected:

λThey account for 60% of all road accident fatalities,

46% of those killed are men, women and children are secondary victims

λ40%-50% of hospital beds are occupied by traffic accidents

What causes colorectal cancer?

There are several causes for colorectal cancer as well as factors that place certain individuals at increased risk for the disease. There are known genetic and environmental factors.

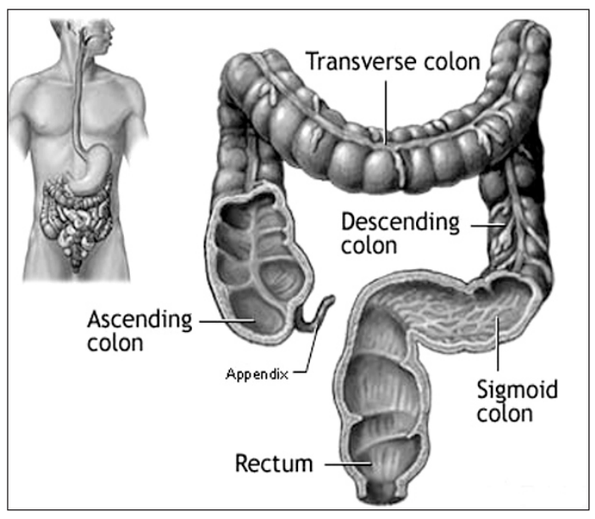
People at risk for colorectal cancer

λThe biggest risk factor is age. Colorectal cancer is rare in those under 40 years. The rate of colorectal cancer detection begins to increase after age 40. Most colorectal cancer is diagnosed in those over 60 years.
λHave a mother, father, sister, or brother who developed colorectal cancer or polyps. When more than one family member has had colorectal cancer, the risk to other members may be three-to-four times higher of developing the disease. This higher risk may be due to an inherited gene.
λHave history of benign growths, such as polyps, that have been surgically removed.
λHave a prior history of colon or rectal cancer.
λHave disease or condition linked with increased risk.
λHave a diet high in fat and low in fibre.

Who is at risk for inherited forms of colorectal cancer?

λPeople whose relatives developed colorectal cancer before age 60.
λThose with relatives who have other forms of cancer, particularly breast or ovarian cancer.
λThose with a family history of stomach, abdominal, bowel, bone, or liver cancer. In the past, colorectal cancer was misdiagnosed as stomach, abdominal, or bowel cancer, or, in later stages, the cancer may have spread to the bone or liver.
λDistant relatives, such as cousins, aunts, uncles, etc., who develop colorectal cancer may raise the risk of colorectal cancer for other distant family members. The relative increase in risk is not as high as in those who have first-degree relatives, such as parents or siblings with colorectal cancer.

Having certain diseases or conditions may place people at increased risk for colorectal cancer. These include
λChronic ulcerative colitis, an inflammatory condition of the colon. People in this risk category have long-term disease, most for ten years or more.
λCrohn's disease, which is an inflammatory disease of the gastrointestinal tract. This disease may increase colorectal cancer risk, although not as much ulcerative colitis.
λA history of breast, uterine, or ovarian cancer in women.
λInherited a specific colorectal cancer syndrome. Those with an inherited syndromes may develop colorectal cancer at a much younger age, in their 30s or even younger.



Inherited colorectal cancer syndromes

Inherited colorectal cancer syndromes is a name given to a group of different types of colorectal cancer found to be directly inherited, or passed down from one generation to the next. Over the past several years, genetic forms of colorectal cancer have been identified and genetic tests developed.

Genetic forms of colorectal cancer represent a smaller percentage of all colorectal cancer cases. However, those with a strong family history of colorectal cancer may consider talking to a genetic counselor. Those at high risk may choose to undergo screening at an earlier age.

There are two basic forms of colorectal cancers recognized as having a genetic basis:
λ**Familial adenomatous polyposis (FAP)** is a rare genetic disorder of the colon characterized by the development of hundreds of polyps on the inner walls of the colon. People with FAP are at a higher risk for developing colorectal cancer at an early age (in their early 30s).

The treatment of choice is to have an operation to remove the diseased colon to avoid the eventual development of colorectal cancer. This operation can be done without the need for a colostomy.
λ**Hereditary nonpolyposis colorectal cancer (HNPCC)** is a form of colorectal cancer that runs in certain families. HNPCC is divided into two types:

Type I: People with this form of HNPCC can develop colorectal cancer before age 50.

Type II: People with this disorder are not only at higher risk for colorectal cancer before age 50 but are also at high risk for uterine, ovarian, thyroid, bladder, and other cancers.

Reliable blood tests can now determine if a person has certain genes responsible for inherited colorectal cancer. Inherited colorectal cancer makes up about 20 percent of colorectal cancer cases.

Gastrointestinal carcinoid tumors

Gastrointestinal carcinoid tumors are a rare form of cancer affecting the intestinal tract, including the stomach, small intestine, appendix, colon, or rectum. Carcinoid tumors do not usually cause major, recognizable symptoms and can take years to develop. In most cases, these tumors are accidentally discovered during abdominal surgery. These tumors secrete hormones - groups of chemicals released into the bloodstream that have an effect elsewhere in the body.

In some people, carcinoid tumors may cause symptoms known as "carcinoid syndrome":
λFacial swelling with redness or flushing
λWheezing
λDiarrhea

Carcinoid syndrome symptoms usually occur only if the cancer spreads to the liver.

Treatment for carcinoid syndrome depends on the stage of the disease and the person's overall health. Treatment may include surgery, radiation therapy, or chemotherapy.

Source: YourMedicalSource.com

Spinal-fusion surgery: Advances and concerns

STEPHEN J LISPSON, MD

Spinal arthrodesis (the creation of a fusion) was developed for the treatment of instability and deformity due to tuberculosis, scoliosis, and traumatic injury.

Surgical implants for the spine were developed later in the century in an attempt to improve the rate of fusion and hasten the recovery of patients after surgery. Today, the population of patients in whom surgeons use arthrodesis has changed greatly.

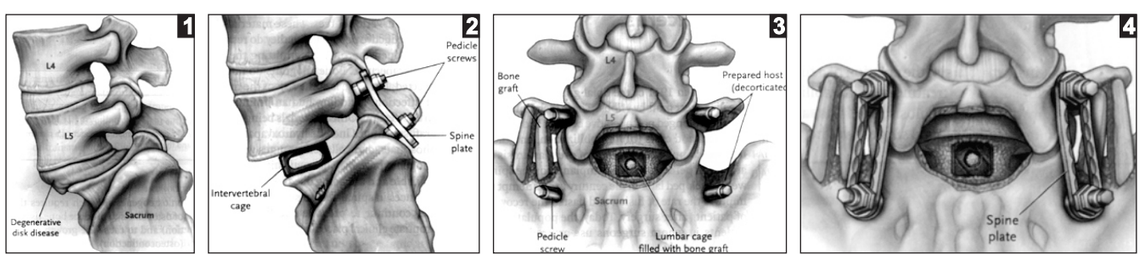
About two thirds of adults have low back pain at some time. The traditional techniques used autologous bone to create a spinal fusion. The osteogenic potential of the donor bone and the prepared host site were relied on to produce successful fusion.

Current surgical technology permits the use of surgical implants in the spine with the goals of correcting deformity, managing pain, and improving arthrodesis through the immobilisation of the spine; it also allows osteoblastic activity to take place in a fusion mass that leads to the formation of new bony trabeculae. The use of pedicle-screw fixation, with intervertebral fixation using plates or rods, is relatively new and has already become common place. In addition, intervertebral cage devices have been developed that can be inserted by means of either an anterior or a posterior approach. The cage is metallic and is filled with bone-graft material in order to produce fusion between one vertebral body and the next. The cage itself distracts the intervertebral space, helps to immobilise the segment so as to promote fusion, and is perforated in order to allow the in-growth of bone from the vertebral body to the graft within the cage.

Neural decompression can be performed through a laminectomy, and a cage can be placed in the prepared intervertebral space for arthrodesis. With the use of a posterolateral approach, pedicle screws are placed bilaterally in the lumbar and sacral vertebrae. The screw connectors lie just dorsal to the transverse processes that arise from the pedicles. The transverse processes are decorticated on their dorsal aspect with the use of gouges, curettes, or power burs. Once decortication is complete and the screws have been placed, a bone graft is placed between one tranverse process and the next. The use of such surgical instrumentation always carries some risk of technical complications, increased operative time, greater blood loss, and higher costs.

In order to achieve a successful arthrodesis, it is traditional to use an autologous bone graft, usually from the iliac crest, because of its substantial osteogenic activity. The goal is to produce a solid fusion mass connecting one vertebra to another. Bone-graft donor sites can be a source of pain, infection, and additional blood loss, and removing the bone takes extra time during surgery. Therefore, substitutes for authologous grafts have recently been developed. Successful fusion is biologically dependent on osteogenesis, which requires the stimulation of osteblasts to produce bone tissue (osteoinduction) and to cause the growth of bony trabeculate (osteoconduction).

Recently introduced substitutes for autologous bone grafts include frozen or freeze-dried allografts from cadaveric sources. These materials have less osteoinductive potential, but they do retain their osteoconductive property, permitting the growth of bony trabeculae. Bone allografts do not tend to be rejected, but there is some risk of the transmission of infection, including human immunodeficiency virus infection. Other materials being used as bone-graft substitutes include hydroxyapatite, tricalcium phosphate, and collagen sponges with bone morphogenic protein. These substitutes are currently available and are being used in clinical series. The advances in spinal-fusion surgery are exciting, but they continue to provoke questions about the appropriate clinical place for this complex surgery.



1. The intervertebral disk has lost height and buldges out. 2. An intervertebral cage has been placed to correct the loss of height. Pedicle screws have been placed through a metal plate and into L5 and the sacrum. 3. An intervertebral cage is in place between the decorticated endplates of L5 and S1. The L5 transverse process and the sacral alae have been decorticated, with one bone graft in place. An L5 laminectomy allows for decompression and cage placement. 4. Spine plates and bone graft have been placed to produce thefusion between L5 and the sacrum.

The article was first published on The New England Journal of Medicine.

Breast-fed babies have lower blood pressure

Breast-fed babies grow up to have lower blood pressure than bottle-fed children, British researchers reported.

This could mean they will have lower blood pressure as adults, and thus a lower risk of heart disease, the No. 1 killer in the industrialised world, the researchers said.

For every three months a child was breast fed, his or her systolic blood pressure reading -- the top number -- went down 0.2 points, on average. Breast-feeding time did not significantly affect diastolic blood pressure -- the lower number.

"Even this small reduction may have important population-health implications," said Richard Martin, a senior lecturer in epidemiology and public health at the University of Bristol in Britain, who led the study.

Lower blood pressure is directly linked to lower risk of heart attack, stroke, kidney disease and other related illnesses.

Breast-fed babies are also less likely to be overweight, have fewer behavioral problems and may show differences in intelligence, other studies have shown. Therefore, groups such as the American Academy of Pediatrics recommend that all mothers breast-feed their babies for the first year, and two years if possible.

The researchers said the nutritional content of breast milk may be responsible.

Breast-fed children tend to consume less sodium, which is one factor that can influence blood pressure. Breast milk also contains long-chain polyunsaturated fatty acids, which are compounds that can affect the development of blood vessels.

Infant formula supplemented with these fatty acids has been associated with lower blood pressure.

Formula feeding can also cause babies to eat more than they need and can, in some babies, cause too-rapid weight gain.

Excess weight is also associated with higher blood pressures and promotes insulin resistance, which often precedes development of diabetes in adulthood.

There is some weak evidence that there is a small lowering of blood pressure in adulthood (among children who were breast fed), but the evidence is inconsistent.

A study showed that the children who were breast fed for any length of time had lower blood pressure than did formula-fed children.

After adjusting for factors such as mother's education, socioeconomic status and birth weight, the researchers still found lower blood pressure in the breast-fed children.

It was 0.8 mm Hg lower for systolic pressure and 0.6 mm Hg lower on average on the diastolic pressure reading.

The findings held regardless of the child's sex, body mass, or pulse. Family social status, income, number of siblings, whether the mother drank alcohol, the child's health, and the child's ethnicity did not change the association between breast feeding and blood pressure.

Source: http://www.reuters.com

Frequent sex may cut cancer risk

Contrary to some research, frequent sexual activity does not increase the risk of developing prostate cancer and might even reduce the danger, a study of nearly 30,000 men found.

Some previous studies have suggested that men who have frequent ejaculations -- whether through sex or masturbation -- might be more prone to prostate cancer. One theory is that lots of sex exposes men to various germs and viruses that somehow lead to prostate cancer.

The latest study should be "reassuring to those men who may be more active than others," said Dr. Durado Brooks, prostate cancer director for the American Cancer Society.

The study involved 29,342 health professionals ages 46 to 81 who were asked about their ejaculations in their 20s, 40s and during the previous year. During about eight years of follow-up, 1,449 men developed prostate cancer.

On average, the men overall had four to seven ejaculations a month. No increased risk of prostate cancer was seen in men who reported more frequent ejaculations, and there appeared to be a decreased risk in men with the highest reported levels.

The two highest activity levels -- 13 to 20 ejaculations a month, and at least 21 a month -- were linked with decreased cancer risks of 14 percent and 33 percent respectively.

One theory is that frequent ejaculations help flush out cancer-causing chemicals or reduce the development of calcifications that have been linked with prostate cancer.

But relatively few men in the study reported heavy sexual activity, so more research is needed to establish whether there is, in fact, a link, said Dr. Michael Leitzmann, a researcher who led the study.

"It's too early to suggest that men should change their sexual habits to alter their prostate cancer risk," he said.

The theorised connection between frequent sexual activity and prostate cancer is not entirely far-fetched: High levels of the male hormone testosterone can cause a strong sex drive and can also fuel the growth of cancer cells.

He said the biological mechanisms that might explain the results probably do not differ by race.

Prostate cancer is the second most common cancer in men, after skin cancer.

Source: http://www.cnn.com