Never too Late to Quit Smoking

Prof Habibuz Zaman

CHOUDHURY is nearing 60. He has been smoking for over 40 years. He has tried to give up many times. Only once he had succeeded to stop for a couple of months, when he was led into temptation by a generous house-guest with a carton of imported cigarettes! At 60 Choudhury has chronic bronchitis, coronary artery disease with breathlessness on exertion and changes on electro-cardiogram. Will abstinence from smoking at this stage of life help? Choudhury is disinclined to try.

There is good news from the United States of America for Choudhury and others, who have been smoking for many years. In her latest report on Smoking and Health for the people of the United States of America, the Surgeon General has analysed data, which indicate that *it is never too late to give up smoking — some benefit is to be derived, no matter when one stops.* In a summary of the Surgeon-General's report, Dr Novello emphasises the following points, *which are quoted:*

"1. Smoking cessation has major and immediate health benefits for men and women of all ages.

"2. Former smokers live longer than continuing smokers. For example persons who quit smoking before age 50 have one half the risk of dying in the next 15 years compared with continuing smokers.

"3. Smoking cessation decreases the risk of lung cancers, heart attack, stroke, and chronic lung disease.

"4. Women who stop smoking before pregnancy or during the first three to four months of pregnancy reduce their risk of having a low birth weight baby to that of women who never smoked.

"5. The health benefits of smoking cessation far exceed any risks from the average 5-pound (2.3 kg) weight gain or any adverse psychological effects that may follow quitting."

Smoking Cessation and Lung Cancer

It was seen that *men who smoked a pack or more of cigarettes a day had 27 times the risk of dying from lung cancer compared with men who never smoked.* Female smokers had 16 times the risk. The risk declined gradually both among men and women on quitting smoking. The excess risk was reduced by about 45 per cent within 6 to 10 years of quitting, and by about 85 per cent after 16 years or more.

Smoking Cessation and Heart Disease

The Surgeon-General's report reviews several studies on smoking cessation and heart disease. The overall finding is that *the excess risk of coronary heart disease, related to smoking, is reduced by about half after one year of quitting (smoking),* and then it declines gradually. After 15 years of smoking cessation, the risk of coronary heart disease is similar to the risk in people who never smoked.

The immediate effects of tobacco cessation are indeed dramatic. Within hours of stopping, the body starts cleansing itself of two most deleterious agents in tobacco smoke: nicotine, which causes addiction and may lead to heart and vascular disease and reproductive disorders; and carbon monoxide, which combines with haemoglobin to form carboxy-haemoglobin and thereby diminishes the oxygen carrying capacity of the blood to the tissues and may thus contribute towards the development of cardio-vascular disease. *The nicotine concentration in the blood is reduced to half within two hours of cessation of smoking; similarly the carboxy-haemoglobin level falls to half in 2 to 8 hours of quitting.* Other effects of smoking such as increased coagulability of blood, coronary artery spasm, heart rhythm disturbances, seem to be reversible within days or weeks.

The effect of these rapid changes is reflected in the risk of first heart attacks in smokers and ex-smokers. According to two reports published by Rosenberg, *current smokers had a 3-4 fold increased risk of heart attack as compared to non-smokers. The risk was reduced to half within 1-2 years of quitting.* According to this study, after 3 years (of quitting) the risk in ex-smokers was similar to that in individuals who had never smoked.

Smoking Cessation and Life Expectancy

Individuals, who give up smoking before age 50, have half the risk of dying within the next 15 years than those who continue to smoke. Smokers over age 55 have the greatest risk of dying within the next 15 years as compared to those who have given up or have been life-time non-smokers. *Thus an important and key finding of this report is that it is always worthwhile to give up smoking — the earlier one gives up the greater the benefits.*

Smoking Cessation and Smoking-related Diseases

Smokers who are victims of such diseases as coronary heart disease, gastro-duodenal ulcers or reduced peripheral circulation can benefit from smoking cessation since complications can be avoided, recovery hastened and life expectancy extended.

Smoking Cessation and Pregnancy

About 25 per cent US women continue smoking during the entire length of pregnancy. Of those who cease smoking during pregnancy about 70 per cent revert to the habit once again within a year of delivery. This is most unfortunate since the newborn is exposed to the adverse effects of passive smoking, the mother to the renewed risks of the tobacco habit and a prospective foetus to the *usual complications of pregnancy in the smoking women,* viz, low birth weight, pre-term delivery, bleeding during pregnancy and premature and prolonged rupture of the membranes.

Smoking Cessation and Weight Gain

The Surgeon-General's report included the findings of 15 studies involving 20,000 individuals who had quit smoking. The average weight gain was found to be only 5 pounds, which was considered to pose a minimal health risk. *So the possible weight gain should not deter anyone from an effort to quit smoking.*

Psychological Effects of Smoking Cessation

The symptoms of nicotine withdrawal are anxiety, irritability, difficulty in concentration, increase in appetite, and an urge to smoke. Most of these symptoms disappear within a couple of days with the exception of the urge to smoke, and an increased appetite. Nicotine gum, exercise, stress management and dietary counselling help to tide over these problems.

An interesting data revealed by the report is that *approximately one half of all living Americans, who ever smoked, have quit — a total of over 38 million people.* Nevertheless, fifty million Americans continue to smoke — about 29 per cent of the adult population. A new campaign is in progress to encourage smoking cessation among Americans with the major message that *it is never too late to quit smoking.*

If quitting smoking is good for young and old Americans, it is bound to be beneficial to individuals anywhere in the world, including Bangladesh. Why not try? What does it cost?

Acknowledgement

The writer acknowledges that in presenting these valuable and interesting findings to the readers of The Daily Star, he has borrowed extensively from Dr Novello's article in the Public Health Reports.

As a former Regional Adviser of the World Health Organization, Prof Zaman was the operational officer, responsible for the initial development of WHO's programme on "Smoking or Health" in the South East Asia Region.

The 'soft needle' shares the same therapeutical principle with acupuncture but is a lot less formidable. by Lang Luoqiang

Thread Acupuncture: The 'Soft' Approach

BEIJING : Acupuncture can cure diseases. But many people are scared at seeing the long needles twisted into their flesh.

There is, however, a treatment method called "soft needle" which shares the same therapeutical principle but is a lot less formidable.

The medical tool is actually not made from metal but from hemp fibres twisted into the form of thread. It is immersed in alcohol, musk and 12 herbal medicines for 43 hours before being applied on the patient's acupoints.

The treatment process is simple. First, one end of a medicated thread is ignited and the flame is extinguished. The burnt end is applied to a point. Then the practitioner twists and presses his thumb on the point.

This medicated thread therapy is handed down through generations in the Long's family in China's Guangxi Autonomous Region. Long Yuqian, 58, is the last man in the family that carries on the practice.

He now works at the Guangxi College of Traditional Chinese Medicine in Liuzhou. He had kept secret the family's process of treatment and healing technique until he started a training course in 1976. But the manufacture of the threat is still secret.

The technique can treat or cure 120 diseases, including tuberculosis, infertility, neurological and kidney diseases, diarrhoea, acute sprains and eczema, according to Mr. Long. Since 1974, he has treated more than 100,000 patients. According to his case records, 80 per cent of his patients improved.

A 28-year-old Hongkong woman, who suffered infertility for six years, knows how effective the therapy can be. In 1987, she travelled as a tourist to Guangxi, where she heard about the therapy. She spent 24 days to receive treatment from Mr. Long.

Afterward, her menstruation returned to normal, her womb position corrected and she was declared "recovered." In April 1990, she mailed a picture of her baby girl to Mr. Long, with an expression of thanks. She said that she might never have got a baby of her won without the treatment.

Like other forms of traditional Chinese medicine, this therapy is based on the belief that the cause of disease is the imbalance of vital "qi" and blood flowing along the channel system believed to exist in the human body.

Its principle is the same as that of acupuncture and moxibustion practised in traditional Chinese medicine. Healing is achieved by stimulating selected points distributed on or along main and collateral channels. Circulation of vital "qi" and blood is balanced and regulated.

Some 362 points are used in medicated thread therapy. And thread therapy shares most of the points with acupuncture. But some of the points are not convenient for acupuncture and that is where the use of the thread comes in.

Three types of medicated thread areused, each 30 centimetres long. Thread No. 1 (1 millimetre in diametre) is generally used in winter. It is applied to the point where the skin is a bit thick. Thread No. 2 (0.7 millimetre) is the most commonly used one that treats more diseases than the other two types. Thread No. 3 (0.25 millimetre) is made for children and applied to the point where the skin is somewhat thin.

Patients say there is no pain. "When Dr. Long applies the thread to selected points, he gives a gentle touch with his thumb and I only feel a slight twinge. Only the carbon black is left on the skin, but it can be wiped clean," one woman says.

Generally, one treatment lasts 15 days. Every day the patient receives one stimulation treatment with the burned, medicated thread. Acute diseases take less time to treat than chronic ones.

Sometimes, Mr. Long twists two types of thread together to treat chronic and stubborn diseases. During treatment, some patients in serious cases are given oral doses of herbal and Western medicines to speed improvement.

Like any practitioner of traditional Chinese medicine, Mr. Long stressed that diagnosis and treatment should be based on an analysis of symptoms, the locations of the illness and the patient's physical condition. In most cases, he made final diagnosis with the aid of diagnostic methods of modern Western medicine.

To popularise the technique, the Guangxi People's Publishing House recently published a book about Mr. Long's years of medical practice. Many people lined up outside the clinic in Liuzhou to buy the book which also offers ideas for self-treatment with the therapy.

The burnt thread should be kept away from the eyes. Pregnant women should avoid the treatment also since the thread contains musk, which practitioners of Chinese medicine believe will cause a miscarriage.

To train practitioners, the Guangxi Zhuang Nationality Medical Association has held 20 courses for about 1,100 people. Other students have enrolled in the association's two correspondence courses. Every year, 65,000 patients visit the clinic run by the Guangxi College of Traditional Chinese Medicine.

The college has set up clinics in Britain, Australia, Singapore, Taiwan and Hongkong. When some of Mr. Long's students practised medicine among the poor in Nigeria, their healing skill attracted some rich people who pretended they where poor to receive treatment.

How to overcome kidney stones

A recent conference, presided by Professor A. Le Duc (Paris), recently raised the issue of treatment for kidney stones. It is known that they can cause bout of terrible pain (nepgritic colic) and that they can result in the "death" of a kidney from lesions and /or infection.

Until the early 80s there was no solution but surgery .....or patience.

Then the first lithotriptors made their appearance, making it possible to destroy the stones, with or without anaesthetics, using "shock waves", in other words, by ultrasound.

The surgeon had to be a good shot, so other systems, enabling the stones to be precisely and automatically detected by ultrasound scanners or X-ray, were added.

But there are soft kidney stones, which can be easily shattered, and other extremely hard ones which resist the shock waves. This led to research on a variable lithotriptor.

However, there is a further problem. In one third of cases the stones have indeed been shattered but then give rise to bouts of nephretic colic. Moreover, even a tiny fragment which has not been eliminated can serve as a base for the development of a further kidney stone. This results in a whole series of difficult decision-making both for the kind of machine to use and for the patient.

If classical "open-abdomen" surgery is recommended in fewer than 5% of cases, "percutaneous" surgery is now used for 15 to 20% of disputable problems. Through a micro-incision, the surgeon reaches the natural ducts, inserts probes, optical instruments and tweezers, which are all microscopic, and destroys the stone, removing the debris by sucking it up, all under visual control.

When for a variety of reasons, the kidney stone cannot be reached in this way, a pulsed laser is used to break up the stone, following the natural ducts.

Welfare State Swallows Dose of Bitter Medicine

Health services are becoming more expensive for most New Zealanders, with the introduction of a 'user pays' principle. by Derek Round

MANY New Zealanders, long accustomed to living in a welfare state, have been shocked to find they will have to pay more for their health care under a tough new programme announced by the conservative National Party government.

About half the population — 1.5 million people — face higher doctors' fees and medicine charges. And, for the first time, they will have to pay if they go to hospital.

For the first 10 days in hospital they will be charged NZ$50 (US$29) a day for themselves and their children. There will be no charge if they have to stay longer.

But about half the population, designated as low income families, will get discounted prices on some health and social services. They will be given a "Kiwi Card" showing their entitlement to these discounts.

The new programme, introduced in the Budget presented to Parliament by Finance Minister Ruth Richardson, the country's first woman finance minister, is based on the "user pays" principle. It is aimed at curbing government spending on health and social services which account for about NZ$14 billion (US$8 billion) of total government spending of NZ$30 billion (US$17 billion).

The new measures have come as a dose of bitter medicine to New Zealanders who have always been used to having free hospital treatment.

Former Labour Party health minister Helen Clark, describing the health charges as "deeply shocking," said: "I think that many quite modest income families are going to be deeply hurt by this."

But Health Minister Simon Upton says that, despite the new charges hitting middle and higher income earners, they are still getting substantial subsidies. "We have taken care of the most vulnerable people in out society," he said. "It is the middle class which is paying more."

From next year "middle New Zealanders" will pay the full costs of visits to the doctor for themselves and their children, NZ$20 (US$11.40) for a prescription from the chemist, NZ$31 (US$17.70) for an out-patient visit to hospital and NZ$50 (US$28.60) a day if admitted.

The new charges will apply to single people earning about NZ$17,000 (US$9,715) a year and a two-child family with an income of NZ$32,000 (US$18,285).

Critics of the changes argue that people on these incomes can hardly be described as wealthy by New Zealand standards.

Mr Upton says the new health charges are not designed as a revenue-earner, but rather allowed the government to target assistance based on people's ability to pay.

The new measures include a drastic revamping of New Zealand's old age pension scheme. All citizens at present qualify for the pension when they reach 60.

From next year the qualifying age for the pension will be raised to 61 and will increase to 65 by the year 2001. Pensioners who get more than NZ$4,000 (US$2,285) a year income from other sources will have their pensions reduced.

Until this year the pension was also adjusted regularly to allow for inflation, but the government has frozen these increases until 1993.

The government says about two-thirds of New Zealand's half million pensioners who rely solely on the pension for their income will face no change. The present pension is NZ$170 (US$ 97) a week for a single person.

With unemployment approaching 12 per cent, the decision to raise the qualifying age for the pension from 60 to 65 is expected to mean greater hardship for people in their early sixties without jobs.

But the government says they will be able to claim the unemployment benefit and it will ensure there are no legislative barriers denying people the right to work past the age of 60.

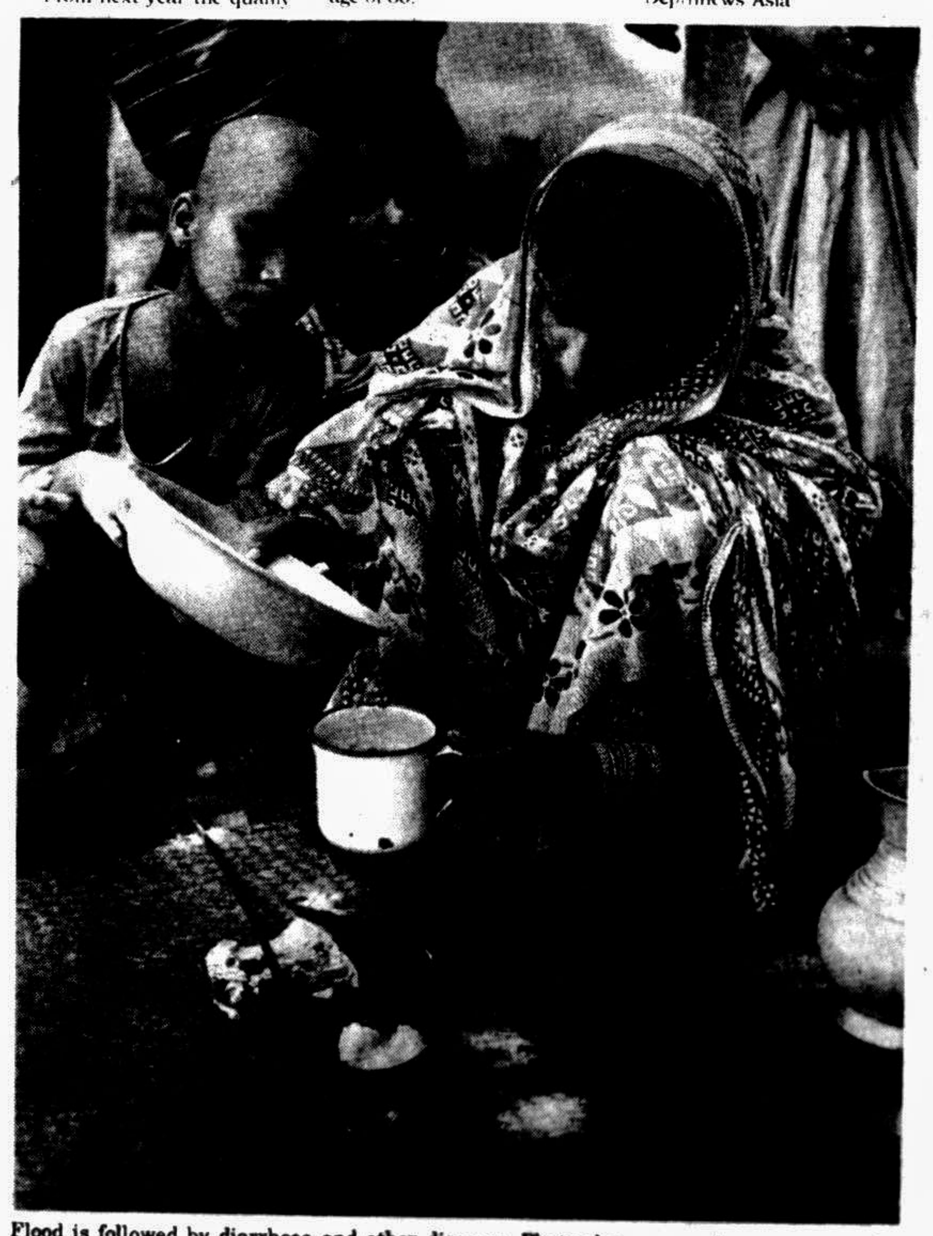
Critics argue that it is difficult for 50-year-olds to get work now and it will be much harder for 60-year-olds.

In another move, the government has significantly changed the country's "no fault" accident compensation scheme under which accident victims automatically get compensation regardless of who is at fault, and without litigation.

In future, most of those injured will be expected to pick up part of their medical bills. Motorists will have to pay more for petrol and registering their cars to help meet the costs of the scheme.

The scheme is at present funded largely by employers, but workers will in future have to pay a levy of between 50 and 70 cents on each NZ$100 they earn.

Finance Minister Ruth Richardson says the new measures are in line with the government's policy of transforming New Zealand from a "declining, debt-ridden country into a dynamic, enterprising and prosperous nation." — Depthnews Asia



Flood is followed by diarrhoea and other diseases. Photo shows a rural woman preparing oral rehydration saline in a stricken area. —Photo courtesy : Shasthya Tathya

Ceramic Particle for Efficient Drug Delivery

A tiny ceramic particle that could carry drugs and vaccines more efficiently has been developed by scientists in California, reports the journal New Scientist.

The particle, a cluster of spheres only one hundredth of the diameter of a red blood cell, is designed to hold proteins and pharmaceutical compounds on its surface without alterting their shapes.

The shape of the molecule is important in determining its activity in the body. Some carriers of vaccines or drugs may change the structure of the molecules making them less effective.

Researchers Nir Kossovsky of the School of medicine and Rointan Bunshah of the School of Engineering at the University California in Los Angeles tried to overcome this problem, reasoning that a compound that reduced surface charge would be ideal material.

After screening many candidates, the scientists came up with an organic molecule that they have nicknamed Goldfinger 292. The two scientists mixed particles of tin oxide only 2 to 3 nanometres across in the presence of GF 292. The mixture "balled up as we expected," the journal has quoted Kossovsky as saying. They got spherioids about 100 nanometres across.

To test the carriers, the researchers attached to them a common protein from the blood transferrin. They then examined the protein under an electron microscope after labelling the coated carriers with a gold-bound antibody.

The antibodies recognised the protein, which suggests that its shape had not changed.

According to the journal, one possible application of the new carrier could be to carry an antigen from the giant Epstein Barr virus and stimulate the immune system to produce antibodies against it. The virus, which is about the same size as the carrier, causes glandular fever and is linked with some cancers.

The team is mounting the coat protein from the virus on the carrier and plans to test it in rabbits soon, the journal reported.