INFORMATION ON SMOKING AND HEALTH

SUMMARY

• In Ireland about 6000 people die each year from smoking-related diseases. This is 10 times more than the number killed each year in road accidents.
• About a quarter of all regular smokers are killed prematurely by their smoking. Those killed lose on average 10-15 years of potential life.
• Smoking causes three major diseases – lung cancer, heart disease and bronchitis/emphysema.
• Smoking is a major cause of 90% of lung cancer deaths, 25% of deaths from heart disease and about 75% of deaths from bronchitis and emphysema.
• A pregnant woman who smokes has an increased risk of miscarriage, of having a stillborn baby or of having a low birth weight baby.
• Smokers have more peptic ulcers and their ulcers respond poorly to treatment.
• Smoking can cause peripheral vascular disease which can result in gangrene and amputation.
• Smokers cough more, get more chest infections and shortness of breath.
• Non-smokers exposed over a long period to passive smoking (i.e. smoke from other people’s cigarettes) have at least a 35% increased risk of cardio-respiratory symptoms.
• Infants living with smokers suffer from increased frequency of respiratory problems – colds etc. compared to those in non-smoking households.

Smoking and your heart

Smoking is a major risk factor increasing your chance of getting heart disease. Your heart is a muscle which pumps blood through your body. On average, it beats about 70 times a minute, day and night, resting only between beats. Nicotine, an ingredient of tobacco, when absorbed into the blood stream, leads to excessive production of adrenaline. Adrenaline is a hormone, one effect of which is to cause constriction of the arteries. The blood supply to the heart may be altered in this way by cigarette smoking.

The following is a list of the effects of smoking on your heart:

• Smoking increases your heart rate and increases your requirement for oxygen and other nutrients in the blood.
• Increased carbon monoxide in the blood may contribute to the development of coronary heart disease (heart attack).
• Smoking cigarettes increases the tendency for the blood to clot in the vessels (thrombosis).
• Smokers have a higher risk of developing atherosclerosis of the arteries supplying blood to the heart; hardening and narrowing of these arteries reduce the blood supply to the heart muscle.
• Your risk of heart attack and angina occurring permanently is generally increased if you smoke cigarettes.
• Non-smokers exposed over an extended period of time to passive smoking have an increased risk of heart disease.
• Ex-smokers have been shown to have a greatly reduced risk of developing heart attack and angina. No matter how heavy a smoker you are, or for how long you have been smoking, it is never too late to stop.

**Smoking and your lungs**
About 90% of the people who get lung cancer are smokers. Non-smokers are exposed over an extended period of time to passive smoking also have an increased risk of lung cancer.

**Smoking and bronchitis**
Chronic bronchitis is a serious disease which is directly linked to cigarette smoking. In cases of chronic bronchitis the air passages produce too much mucus. This mucus cannot be removed in the usual way because of damage caused by smoking and instead it is coughed up as phlegm. This is the “smoker’s cough”. Eventually the mucus can become infected and the smoker suffers from acute illness with fever and the coughing of phlegm discoloured by pus. Finally the air passages become choked with infected mucus and the air sacs are destroyed, leaving the sufferer with permanent breathing difficulties. Although we hear more about lung cancer as being the serious lung disease suffered by smokers, chronic bronchitis is the most frequent disease among smokers.

**Smoking and Emphysema**
Emphysema is an irreversible lung disease associated with chronic bronchitis and excessive coughing. In emphysema, the air sacs in the lungs are enlarged and damaged. This reduces the surface area of the lung available for exchange of oxygen and carbon dioxide. Severe emphysema causes breathlessness which is made worse by infections. It is estimated that smoking is associated with 75% of deaths from emphysema.

**Smoking and the reproductive system**

**Smoking and pregnancy**
If you smoke when pregnant, your baby smokes too.

Pregnant women who smoke have an increased risk of miscarriage, of having a stillborn baby or of having a low birthweight baby. Reductions of 40g to over 400g (approximately 2-8ozs.) in average birthweight have been reported in babies of smokers compared to babies of non-smokers.

Low birthweight is itself associated with increased illness and death of babies around the time of their birth. Long-term effects are delays in physical, emotional and intellectual development.

**Other effects on the Reproductive System**

Some researchers have found an impact of smoking on fertility with a longer delay to conception among smoking women and a higher proportion of sperm abnormalities among smoking men.

Smoking causes women to have natural menopause 1 to 2 years early. Smoking is associated with cancer of the cervix of the uterus.
Among women who use oral contraceptives, those who also smoke are more likely to get a heart attack or stroke.

**Smoking and your brain**

Some 13 billion cells make up the grey and white matter of your brain. From here come all the nerves supplying your body.

All drugs including tobacco, which enter the blood stream, can affect the brain and the nervous system. It is in the brain that the addictive habit of nicotine is located. Nicotine is a stimulant. The addiction to tobacco may be related to its stimulating effect.

Like every other body organ, your brain requires an adequate blood supply to maintain its function and efficiency. Interference with this blood supply may lead to a variety of symptoms which may terminate as a stroke. Constriction of the arteries supplying blood to the brain or thrombosis (clotting of blood) in the arteries can thus cause serious damage.

Cigarette smokers have a greater risk of developing “stroke” than non-smokers. Strokes are common causes of death and prolonged disability in late middle and older age groups.
Smoking on your nose and throat

The person who smokes cannot breathe freely. His/her sense of smell is diminished. Smokers are more likely to get cancer of the throat or larynx. Let’s take the nose first. As smoking irritates the delicate membranes of the respiratory tract, it leaves them more vulnerable to attack. The swelling of the nasal mucus is similar to what happens with the common cold. In an effort to rid itself of the noxious fumes of the smoke, the nose secretes more mucus than normal. The nasal cells swell, restricting the breathing. The secretion also lays the ground for chronic sinusitis by closing the tiny opening to the sinuses. Chronic sinusitis is what smokers know as nasal congestion that makes them “hack” and “spit” all day. As the postnasal drip leaks down his/her throat, the sufferer may develop sore throat, pharyngitis, laryngitis or bronchitis. The throat and its various components such as the tongue are affected in many ways. The tongue is a very delicate piece of equipment, the receiver of all your food and drink. Smoking deadens the taste. Hoarseness may develop from the smoke blowing down over the larynx, making the smoker prone to laryngitis and cancer of the larynx. Persistent hoarseness may be the first sign of malignancy.

Smoking other effects

Cigarette smokers absorb nicotine into their blood. The chemicals in the smoke, absorbed through the delicate lining of the lungs, move quickly into the blood stream circulating to every organ of the body. Smoking also prevents sufficient oxygen from being absorbed and increases the absorption of carbon monoxide. One effect of smoking is that it increases the tendency for blood to clot in the vessels – thrombosis. This is probably due to an effect on blood cells called platelets which become more sticky and tend to adhere to each other. This tendency in cigarette smokers may lead not only to heart attack and strokes but also to peripheral blood vessel disease. Smokers who have damaged the blood vessels to their legs in this way, have a decreased ability to walk without pain. Reduced blood supply to the legs and feet as a result of thickening arteries is rare in non-smokers. As well as being the main cause of lung cancer, there is good evidence that cigarette smoking is also a significant factor in causing cancer of the throat, mouth and urinary bladder. Cancer of the oesophagus has been found to be associated with the combined use of cigarettes and alcohol. A link between cigarette smoking and peptic ulcer has been found. Smoking also appears to reduce the effectiveness of standard ulcer treatment and to slow the rate of healing.

Health benefits of stopping smoking

Stopping smoking is one of the best contributions you can make to your health. Smoking cessation has major and immediate health benefits for men and women of all ages. Benefits apply to persons with and without smoking-related disease. 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. Obviously the sooner a person stops smoking the greater the benefit. Smoking cessation decreases the risk of lung cancer, other cancers, heart attack, stroke, and chronic lung disease. Women who stop smoking before pregnancy or during the first 3 to 4 months of pregnancy reduce their risk of having a low birthweight baby to that of women
who never smoked.
The health benefits of smoking cessation far exceed any risks from the average 5-9 lb (2-4 kg) weight gain or any temporary withdrawal symptoms which may follow quitting.
In addition to the benefits to physical health, a smoker who stops is likely to experience a sense of achievement and increased self-esteem.

Many smokers are put off stopping because they believe the damage is already done. This is usually not true. The damage done by smoking accumulates, and the sooner a smoker stops the greater the benefit. If someone stops smoking before he or she has serious heart or lung disease, most of the risk of death is avoided. This risk starts reducing more or less immediately on stopping.

**European code against cancer**

Certain cancers may be avoided if you:

- Do not smoke
- Moderate your consumption of alcoholic drinks
- Avoid excessive exposure to the sun
- Follow health and safety instructions, especially concerning production, handling or use of any substance, which may cause cancer.

Your general health will benefit from the following:

- Frequently eat fresh fruits, vegetables and cereals with a high fibre content.
- Avoid becoming overweight and limit your intake of fatty foods.

More cancers will be cured if detected early:

- See a doctor if you notice a lump, or observe a change in a mole, or abnormal bleeding.
- See a doctor if you have persistent problems, such as persistent cough, a persistent hoarseness, a change in bowel habits or an unexplained weight loss.

For women:
- Have a cervical smear test regularly.
- Check your breasts regularly and, if possible, undergo mammography at regular intervals over the age of 50.