

CANCER PREVENTION

Cancer Incidence

Cancer is a leading cause of disease worldwide. In 2012, there were an estimated 14 million new cases of cancer in the world: 7.5 million (53%) in men and 6.7 million (47%) in women, giving a male:female ratio of 10:9. The World age-standardized incidence rate shows that there are 205 new cancer cases for every 100,000 men in the world and 165 for every 100,000 women.

Out of 193 countries worldwide, the US has the second highest cancer incidence. The most common four types of cancer worldwide are lung, breast, colon and prostate which account for about 40%.

Worldwide, it is estimated that there were 32.5 million men and women still alive in 2012, up to five years after their diagnosis. It is predicted that by 2030 there will be 23.6 million new cancer cases worldwide each year. If recent trends in the incidence of major cancers and population growth are seen globally in the future; this is nearly a 70% increase from 2012,

In the US in 2014 an estimated 1,665,540 people will be diagnosed with cancer in the United States, and an estimated 585,720 people will die of cancer.

Strang has been at the forefront of cancer detection and prevention research for 80 years. The single largest cancer prevention modality, the Pap test, was developed in collaboration with the founder of Strang and Dr. Papanicolaou.

Strang was founded in 1933 by Dr. Elise Strang L'Esperance and opened by first lady Eleanor Roosevelt. Dr. L'Esperance collaborated with Dr. George Papanicolaou, a medical scientist, whose research led to the early detection of cancer of the cervix.

This breakthrough resulted in the Pap test; In 1940 Strang was the first medical facility to introduce this test into clinical practice.

The Pap test developed at Strang for early detection of cervical cancer continues to save millions of women's lives worldwide.

Visit www.strang.org.

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Tobacco

Tobacco use is the single greatest avoidable risk factor for cancer mortality worldwide, causing an estimated 22% of cancer deaths per year. In 2004, 1.6 million of the 7.4 million cancer deaths were due to tobacco use. Tobacco smoking causes many types of cancer, including cancers of the lung, esophagus, larynx, mouth, throat, kidney, bladder, pancreas, stomach and cervix. About 70% of the lung cancer burden can be attributed to smoking alone. Second-hand smoke, also known as environmental tobacco smoke, has been proven to cause lung cancer in non-smoking adults.

Physical Inactivity Obesity and being Overweight

Regular physical activity and the maintenance of a healthy body weight, along with a healthy diet, will considerably reduce cancer risk. National policies and programs should be implemented to raise awareness and reduce exposure to cancer risk factors, and to ensure that people are provided with the information and support they need to adopt healthy lifestyles.

Dietary Factors

Dietary modification is another important approach to cancer control. There is a link between overweight and obesity to many types of cancer such as esophagus, colon, breast, endometrium and kidney. Diets high in fruits and vegetables may have a protective effect against many cancers. Conversely, excess consumption of red and preserved meat may be associated with an increased risk of colon cancer. In addition, healthy eating habits that prevent the development of diet-associated cancers will also lower the risk of cardiovascular disease.

Alcohol Use

Alcohol use is a risk factor for many cancer types including cancer of the oral cavity, pharynx, larynx, esophagus, liver, colon and breast. Risk of cancer increases with the amount of alcohol consumed. The risk from heavy drinking for several cancer types such as oral, pharynx, larynx and esophagus substantially increases if the person is also a heavy smoker. **Continued on next page.....**

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Infections

Infection is responsible for about 20% of cancer deaths in the developing world and 6% in industrialized countries. Viral hepatitis B and C cause cancer of the liver; human papilloma virus infection causes cervical cancer; the bacterium *Helicobacter pylori* increases the risk of stomach cancer. In some countries the parasitic infection schistosomiasis increases the risk of bladder cancer and in other countries the liver fluke increases the risk of bile duct cancer. Preventive measures include vaccination and prevention of infection and infestation by parasites.

Environmental pollution

Environmental pollution of air, water and soil with carcinogenic chemicals accounts for 1–4% of all cancers. Exposure to carcinogenic chemicals in the environment can occur through drinking water or pollution of indoor and outside air.

Exposure to carcinogens can occur due to contamination of food by chemicals, such as dioxins or aflatoxins. Worldwide, indoor air pollution from tobacco smoke and domestic coal fires are responsible for approximately 1.5% of all lung cancer deaths. Coal use in households is particularly widespread in Asia.

Occupational carcinogens

More than 40 agents, mixtures and exposure circumstances in the working environment are carcinogenic to humans and are classified as occupational carcinogens. Occupational carcinogens are causally related to cancer of the lung, bladder, larynx and skin, leukemia and nasopharyngeal cancer. Mesothelioma (cancer of the outer lining of the lung or chest cavity) is to a large extent caused by work-related exposure to asbestos.

Radiation exposure

Ionizing radiation is carcinogenic to humans. Knowledge on radiation risk has been mainly acquired from epidemiological studies of the Japanese A-bomb survivors as well as from studies of medical and occupational radiation exposure. Ionizing radiation can induce leukemia and a number of other cancers, the risk increasing the younger the age at exposure.

Residential exposure to radon gas from soil and building materials is estimated to cause between 3% and 14% of all lung cancers, making it the second cause of lung cancer after tobacco smoke. Radon levels in homes can be reduced by improving the ventilation and sealing floors and walls.

Ultraviolet radiation, and in particular solar radiation, is carcinogenic to humans, causing all major types of skin cancer, such as basal cell carcinoma, squamous cell carcinoma and melanoma. Globally in 2000, over 200 000 cases of melanoma were diagnosed and there were 65,000 melanoma-associated deaths. Avoiding excessive exposure, use of sunscreen and protective clothing are effective preventive measures. Ultraviolet-emitting tanning devices are now also classified as carcinogenic to humans based on their association with skin and ocular melanoma cancers.

The Strang Cancer Prevention Cookbook

Reduce Your Risk for Cancer by Eating a Healthy Diet!

Coriander, Fennel, & Pepper-Crusted Tuna 4 Servings



Spice Blend : 1 tablespoon coriander seeds, 1 tablespoon fennel seeds, 2 teaspoons black peppercorns

Tuna: 1 1/2 pounds tuna (4 pieces about 1 1/2 inches thick), 1 tablespoon olive oil

To prepare the spice blend, grind all the spices in a small food processor or spice grinder until they are powdery. Spread the spice mixture evenly on a large plate.

Rinse the tuna fillets and pat dry. Place one side of each piece of tuna into the spice mixture. Shake off any excess.

In a large nonstick skillet over medium–high heat, heat 2 tablespoons of the olive oil. Carefully place 2 tuna fillets, spiced side down, into skillet. A spice crust should form within 1 minute. Using tongs, turn over the tuna, lower the heat to medium, and cook for 2 to 5 minutes, to desired doneness. Transfer to a plate and loosely cover with foil to keep warm. Repeat the process with the remaining tuna fillets, adding 1 more teaspoon of oil to skillet.

Calories 207, protein 40g, carbohydrates 0g, fat 5g, cholesterol 74mg, dietary fiber 0g, saturated fat 1g

Tuna is potentially a good source of omega-3 fatty acids.

Recipe by Laura Pensiero, R.D. Owner, GigiTrattoria, Rinebeck, New York

Cancer Prevention: The Ten Do's and Don'ts

1. Don't use Tobacco

Using any type of tobacco puts you on a collision course with cancer. Smoking has been linked to various types of cancer — including cancer of the lung, bladder, cervix and kidney. And chewing tobacco has been linked to cancer of the oral cavity and pancreas. Even if you don't use tobacco, exposure to secondhand smoke might increase your risk of lung cancer.

Avoiding tobacco — or deciding to stop using it — is one of the most important health decisions you can make. It's also an important part of cancer prevention. If you need help quitting tobacco, ask your doctor about stop-smoking products and other strategies for quitting.

2. Eat a Healthy Diet

Although making healthy selections at the grocery store and at mealtime can't guarantee cancer prevention, it might help reduce your risk. Consider these guidelines:

Eat plenty of fruits and vegetables. Base your diet on fruits, vegetables and other foods from plant sources — such as whole grains and beans.

Limit fat. Eat lighter and leaner by choosing fewer high-fat foods, particularly those from animal sources. High-fat diets tend to be higher in calories and might increase the risk of overweight or obesity — which can, in turn, increase cancer risk.

3. Limit Alcohol Consumption

If you choose to drink alcohol, do so only in moderation. The risk of various types of cancer — including cancer of the breast, colon, lung, kidney and liver — increases with the amount of alcohol you drink and the length of time you have been drinking regularly.

4. Maintain a Healthy Weight and be Physically Active

Maintaining a healthy weight might lower the risk of various types of cancer, including cancer of the breast, prostate, lung, colon and kidney.

Physical activity counts, too. In addition to helping you control your weight, physical activity on its own might lower the risk of breast cancer and colon cancer.

Adults who participate in any amount of physical activity gain some health benefits. But for substantial health benefits, strive to get at least 150 minutes a week of moderate aerobic activity or 75 minutes a week of vigorous aerobic physical activity. You can also do a combination of moderate and vigorous activity. As a general goal, include at least 30 minutes of physical activity in your daily routine — and if you can do more, even better.

5. Don't be Exposed to Excess Sunlight

Skin cancer is one of the most common kinds of cancer — and one of the most preventable. Try these tips: Avoid midday sun. Stay out of the sun between 10 a.m. and 4 p.m., when the sun's rays are strongest.

Stay in the shade. When you're outdoors, stay in the shade as much as possible. Sunglasses and a broad-rimmed hat help, too.

Cover exposed areas. Wear tightly woven, loose fitting clothing that covers as much of your skin as possible.

Opt for bright or dark colors, which reflect more ultraviolet radiation than pastels or bleached cotton.

Don't skimp on sunscreen. Use generous amounts of sunscreen when you're outdoors, and reapply often.

Avoid tanning beds and sunlamps; these are just as damaging as natural sunlight.

6. Get Immunized

Cancer prevention includes protection from certain viral infections. Talk to your doctor about immunization against:

Hepatitis B can increase the risk of developing liver cancer. The hepatitis B vaccine is recommended for certain high-risk adults — such as adults who are sexually active but not in a mutually monogamous relationship, people with sexually transmitted infections, intravenous drug users, men who have sex with men, and health care or public safety workers who might be exposed to infected blood or body fluids.

Human papillomavirus is a sexually transmitted virus that can lead to cervical and other genital cancers as well as squamous cell cancers of the head and neck. The HPV vaccine is recommended for girls and boys age 9 to 12; vaccine can be given up to the age of 26 but is less effective.

Cancer Prevention: The Ten Do's and Don'ts

7. Avoid Risky Behaviors

Practice safe sex. Limit your number of sexual partners, and use a condom when you have sex. The more sexual partners you have in your lifetime, the more likely you are to contract a sexually transmitted infection — such as HPV which causes the majority of cervical cancer and may also increase the risk of cancer of the throat, anus, penis, vulva and vagina.

8. Ensure Adequate Levels of Vitamin D

Low levels of Vitamin D, which can be determined in a blood sample, may be associated with an increased risk of colon, breast, prostate, and pancreatic cancer. In areas of minimal sun exposure, such as the North-Eastern US, the recommended daily allowance of Vitamin D under age 70 is 600 IU a day. Over age 70 800 IU a day is recommended.

9. Check your House for Radon Levels

Radon is a radioactive gas released from rocks and soil. Radioactive particles from radon can and lead to lung cancer. Testing the air is the only way to know if your home has elevated radon levels. Radon testing and corrective action when necessary is recommended.

10. Get Regular Medical Care

Regular self-exams and screenings for various types of cancers — such as cancer of the skin, colon, prostate, cervix and breast — can increase your chances of discovering cancer early when treatment is most likely to be successful. Ask your doctor about the best cancer screening schedule for you.

Take Cancer Prevention into your Own Hands, starting Today.

The Rewards will Last a Lifetime.

Sources: World Health Organization, American Cancer Society, National Cancer Institute, Cancer Research UK and the International Agency on Research for Cancer.



February is National Cancer Awareness Prevention Month

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