



Empower yourself with knowledge for a cancer-preventive lifestyle.

The Power of Nutrition: Preventing GI Malignancies

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Understanding Gastrointestinal Cancers

Common GI Malignancies

- Colorectal (650/1350/ y), stomach(600), esophageal cancers(100) in Guilan province



Risk Factors

- Genetics, smoking, age, Obesity
- Focus on modifiable dietary risks



The Protective Role of Nutrition in GI Cancer Prevention

- **Nutrition fuels cellular health:** Nutrients support DNA repair and immune defense.
- **Fiber-rich foods:** Promote gut motility and reduce exposure to carcinogens.
- **Antioxidants and phytochemicals:** Found in colorful products, these fight inflammation and oxidative damage.
- **Reducing harmful foods:** Limits intake of processed meats linked to GI cancers.



Fiber-Rich Protective Foods

- Whole grains: oats, barley, brown rice
- Legumes: beans, lentils, peas
- Fruits: apples, berries, pears
- Vegetables: broccoli, carrots, leafy greens

These foods boost gut motility and dilute carcinogens.



Cancer-Promoting Foods to Limit

- Processed meats: sausages, bacon, hot dogs
- Excessive red meat: especially when charred or grilled
- Refined grains: white bread, pastries, sugary cereals
- High-fat, fried foods

Limit intake to reduce inflammation and carcinogen exposure.



The Protective Role of Fiber

Colorectal Cancer Reduction

Fiber intake linked to 16% decreased risk per meta-analysis.

Sources and Intake

Whole grains, fruits, veggies, legumes; 25-30 grams daily recommended.

Mechanisms

Speeds gut motility, reduces transit time, supports prebiotics.





Fruits and Vegetables: A Rainbow of Protection

Cancer-Fighting Compounds

Cruciferous veggies contain sulforaphane, a potent chemoprotective agent.

Antioxidants & Phytochemicals

Combat oxidative stress and inflammation linked to cancer.

Recommended Intake

At least 5 servings per day for stomach and esophagus cancer prevention.



The Risks of Processed Foods and Red Meat

Processed Meats

Classified as Group 1 carcinogen by WHO with increased colorectal cancer risk.

Red Meat

Moderate intake below 30 gr cooked weekly recommended.

Carcinogenic Compounds

Formed during high-heat cooking; linked to cancer development.

ENVIRONMENTAL RISK FACTORS

- Diet: cohort studies strongly suggests that the risk of gastric cancer increases with a high intake of salt and various traditional salt-preserved foods, such as salted fish, cured meat, and salted vegetables





ENVIRONMENTAL RISK FACTORS

- **Nitroso compounds** :Humans are exposed to N-nitroso compounds (compounds containing an -NO group) from diet, tobacco smoke, and other environmental sources, as well as from endogenous synthesis, which contributes to 40 to 75 percent of total exposure





ENVIRONMENTAL RISK FACTORS

- Diets that are high in fried food, processed meat, fish, and alcohol (**and low in vegetables, fruits, milk, and vitamin A)** have been associated with an increased risk of gastric carcinoma in several epidemiologic studies

- Relative risk of gastric cancer associated with consumption of 30 g of processed meat per day was 1.15

- Processed meats (eg, sausages, ham, beef , corned beef, and other smoked, salted, fermented, or cured meats) were classified as group 1 carcinogens, placing these foods in the same risk category for cancer as asbestos, cigarettes, and alcohol (although the amount of increased risk is nowhere near the same).

Esophageal Cancer

- Certain dietary factors and eating habits have been linked to an increased risk of esophageal cancer. These include consuming high-temperature beverages, fried foods, and red meat, while lower intake of fruits and vegetables may also be a risk factor.





The Risks of High-Fat, Fried Foods

- **Inflammation Trigger:** High-fat fried foods promote chronic inflammation linked to cancer.
- **Carcinogen Formation:** Frying at high heat creates harmful compounds like acrylamide.
- **Impact on Gut Health:** Excess fats disrupt microbiome balance and gut barrier function.



The Importance of Gut Microbiome

Microbiome Role

Crucial for immunity and managing inflammation.

Healthy Gut

- Probiotics and prebiotics support balance
- Fermented foods like yogurt and kefir enhance gut flora

Dysbiosis

Microbiome imbalance may increase cancer risk.

Practical Dietary Recommendations

Mediterranean Diet

Rich in fruits, veggies, whole grains, and healthy fats.

Cancer Prevention

Emphasize balanced patterns **rather than restrictive diets.**

Personalized Advice

Consult dietitians for tailored nutrition plans.





Conclusion: Taking Control of Your Gut Health

1

Key Strategies

Dietary choices that reduce GI cancer risk.

2

Empowerment

Make informed lifestyle decisions.

3

Screening & Detection

Regular checks for early diagnosis.

