



ELITE

Personal Training and Fitness Solutions

HEALTH TOPIC OF THE WEEK

1/16 - Chlorophyllin Cancer Protection

Introduction

We are surrounded by environmental toxins. Currently there are more than **80,000** chemicals listed under the Toxic Substance Control Act.¹

In 2020, approximately **3 billion pounds** of these toxic chemicals – many known carcinogens – were released into the environment.²

More disturbing is the fact that most of these chemicals were never adequately tested by any government agency regarding their effects on human health.³

Studies show that these chemicals contribute to diabetes, heart disease, and cancer by causing DNA mutations.⁴⁻⁸

Environmental toxins are everywhere. The amount we ingest through food is truly alarming. You can't avoid complete exposure to toxins, but you can take steps to minimize their harm.

Spoiler alert

This week's health topic is a bit more technical than most other topics. While you may not remember all the specific details and technical terms, the take-home point is powerful: chlorophyllin is powerfully correlated with cancer prevention!

What is Chlorophyllin and what does it do?

If you see a similarity to the word chlorophyll, you're right. Chlorophyllin is a water-soluble derivative of the green plant that is more familiar - chlorophyll. Chlorophyllin helps to detoxify deadly chemicals in the body and protect DNA. Numerous studies have shown chlorophyllin's ability to protect against various cancers.



Elite Personal Training and Fitness Solutions does not provide medical treatment or intervention. We acknowledge scientific evidence that appropriately intensive exercise and sustainable nutritional intervention can have significant impact on chronic health disorders and obesity, dramatically improving symptoms when recommendations are followed. Please visit us at Eliteptf.com for more information and to schedule your evaluation.



Liver Cancer

The liver is especially at risk because its job is to cleanse the body of toxins. Out of the 600,000 new cases of liver cancer diagnosed yearly, it is estimated that up to 28% are caused by aflatoxin. Aflatoxin is found in improperly stored foods, including peanuts, corn, pistachios, and rice.⁹ Chlorophyllin has the potential to significantly reduce the risk of liver cancer caused by aflatoxin. It binds to the carcinogenic byproducts of aflatoxin metabolism, thus decreasing the bioavailability of cancer-causing chemicals.^{10,11}

Oral Cancer

A study in hamsters showed that chlorophyllin can prevent genetic mutations and reverse gene expression linked to oral cancer caused by the chemical dimethylbenzanthracene (DMBA).⁷⁻¹²

Pancreatic Cancer

Chlorophyllin has antiproliferative effects on pancreatic cells.¹³

Colon Cancer

When colon cancer cells were treated with chlorophyllin, it inhibited the enzyme ribonucleotide reductase (RR), which reduced the cancer cells' ability to grow and made them more receptive to chemotherapy.¹⁴

Bladder Cancer

The combination of chlorophyllin with photodynamic therapy resulted in approximately 85% destruction of bladder cancer cells.¹⁵

Breast Cancer

When human breast cells were exposed to the carcinogen dibenzopyrene (DBP), dangerous and unstable DNA adducts were formed. However, adding chlorophyllin to breast cells led to a 65% decrease in the number of DNA adducts.¹⁶ Formation of DNA adducts is an early step in cancer formation.¹⁷

Stomach Cancer

Chlorophyllin has been shown to help stop the growth and metastasis of stomach cancer in rats.¹⁸

Anti-Carcinogenic Pathways

Chlorophyllin protects against various cancers because it targets multiple pathways that are involved in cancer development. Chlorophyllin has demonstrated anticarcinogenic effects against a variety of environmental toxins.¹⁹



Tip of the week (1/16), page 2

Chlorophyllin helps prevent carcinogens such as heterocyclic amines from altering DNA to inflict malignant changes.²⁰ It limits the formation of DNA adducts caused by known carcinogens, including dibenzanthracene, dibenzopyrene and benzophenanthrene.²¹

Chlorophyllin functions as an antimutagenic agent against chemicals such as PhIP, which are involved in colon, prostate, pancreatic and breast cancer.^{21,22} It protects against mutations of the p53 tumor suppressor gene. Protecting healthy expression of p53 helps guard against cancerous changes.²³

Proper use of chlorophyllin provides considerable defense against natural and man-made toxins that permeate our environment and enter our food. Health-conscious individuals sometimes take 100 mg of chlorophyllin with heavy meals to protect their DNA from environmental and dietary mutagens.



Need Help?

Interested in protecting yourself against the harmful effects of DNA mutation? Reach out to EPT. We are here to help with your wellness questions.



Tip of the week (1/16), page 3

SCAN ME

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Tip of the week (1/16), page 4