



Some people may be surprised to hear that mushrooms are an immune-boosting food

registered dietitian at Edmonton-based nutrition and wellness consulting company Pivot Point Inc., sees unsubstantiated information coming from advertising and the Internet that causes consumer confusion about what to buy. "We need to continue to educate with simple, easy-to-understand messages versus simply reporting the latest research," says Arychuck. "This confuses people because one day they hear good things about a certain food, and the next day it seems to change."

To help guide your customers, here are the some of the top immune-boosters.

Eat Your Veggies

There's a reason to eat your veggies: they contain an abundance of nutrients that help ramp up the immune

system. Vitamins A and C play an important role in strengthening the immune system and are found in many vegetables. Look for the ones that are bright orange colour—bell peppers, carrots, sweet potato or squash—or leafy green—spinach, bok choy or kale. Orange vegetables are a good source of vitamins, as well as betacarotene that prevents cell damage and decreases the risk of certain types of cancer, says Arychuck.

Cruciferous vegetables—including the leafy green ones—are well-known protectors against the development of cancer. "They also have a high amount of calcium (especially kale, broccoli and Chinese cabbage) and protect bone density, which may prevent the onset of osteoporosis, particularly in

women," says Arychuck.

You may be surprised to hear that mushrooms are an immune-boosting food, specifically the shiitake or maitake mushroom, and not so much your garden-variety button mushrooms, says Salib Huber.

An Apple a Day

Everyone has heard, "an apple a day keeps the doctor away," but this is also true for other types of fruit. Citrus fruit are packed with vitamin C and bioflavonoids found beneath the rind, "The white part of the fruit enhances the activity of vitamin C, so leaving a little bit of the white pulp is a good thing," says Salib Huber. Vitamin Chelps your body absorb iron, and because it's an antioxidant, it may help prevent disease. Strawberries, blueberries and cranberries also have a tremendous amount of antioxidant activity. "The benefit of fruit and vegetables are in large part due to their phytochemical content," says Weiler, adding: "These are molecules that allow plants to defend themselves against infection."

Tea Time

Green and black teas are rich in plant antioxidants (polyphenols) and other chemicals that can help protect the body against cold and flu. "Research shows that tea antioxidants offer protection against heart disease and possibly cancer, so there are very good reasons to drink tea," says Weiler. Studies have highlighted a compound called epigallocatechin gallate found in tea that has been shown to inhibit the growth of cancer cells without harming healthy tissues. According to

Arychuck, black and green teas have also been associated with controlling cholesterol levels.

Good Bacteria

Fermented dairy products, such as yogurt and kefir, contain probiotics ("good" bacteria) that line the intestinal tract and protect the body against harmful infections.

A prebiotic is something that provides food for the probiotic and can be found in certain types of bread. "Probiotics and prebiotics crosses into the immune category because the digestive tract is our first site of defense," says Barb Dillingham, senior project manager, functional food and natural health product sector specialist, **Guelph Food Technology** Centre. "They help with the bacteria health in the gut and the integrity of the barrier of the intestines."

Spice it Up

Garlic is the best-known antimicrobial—a substance that kills or inhibits the growth of microbes such as bacteria, fungi or viruses. It has a broad effect and can be used quite easily in food. "I often recommend that people make a garlic broth to drink while they are sick," says Salib Huber. She also recommends turmeric as another great spice for immune support. The golden colour of the spice comes from a polyphenol that has both immune-boosting and antiinflammatory qualities. "This is really good when people have the aches and pains that go along with influenza, as well as the respiratory symptoms," she says. Another antiinflammatory (as well as an anti-nausea) is ginger, which



"I often recommend that people make a garlic broth to drink while they are sick."—Jennifer Salib Huber capitalizing on the estimated \$6.6 billion Canadian market. For example, two years ago billion by next year.

can be chopped up and made into a tea, for a comforting and medicinal effect.

What's the Beef?

Lean red meat is an important source of iron, zinc, protein and B vitamins—nutrients that are essential for optimal health at every stage of life, says Lisa Mina, registered dietitian and executive director, consumer marketing, Beef Information Centre. "Zinc is an essential mineral found in beef; it plays a critical role in growth and helps the body resist disease by supporting the immune system," she says. "On average, a 100 g serving of beef provides 60% of the daily zinc requirement." Canada's Food Guide recommends adults consume two to three daily servings (75 g each) of meat and alternatives.

Something Seems Fishy

According to Arychuck, fish can boost heart health and lower triglycerides. Studies have shown that omega-3 fatty acids may help with other conditions such as rheumatoid arthritis and inflammation. "Fish contain both the fatty acids (DHA and EPA)," says Arychuck. "These fatty acids have better health benefits

compared to the omega-3 fatty acids found in flax or plant sources."

Salib Huber says the omega-3s in fish also work as an antiinflammatory that is immune modulating.

Jean Lamontagne, vicepresident of marketing, True North Salmon Company, says that omega-3 fatty acids are essential to our bodies, but much of the North American diet is deficient in these important nutrients. "There has been a dramatic surge in interest among consumers and health professionals regarding the health effects of omega-3 fatty acids derived from fish and fish oils," he says. "Several studies have indicated an inverse relationship between fish consumption and the risk of cardiovascular disease."

A recent Ipsos-Reid study shows that having prepacked fresh fish, especially salmon, is very important for quick-trip consumers. Approximately 35% of fish consumers prefer this to the counter on most shopping occasions.

On the Go

The demand for products with added health benefits has led to functional food offerings from large multinationals to small manufacturers keen on

Coca-Cola North America launched Diet Coke Plus, a carbonated soft drink with added vitamins and minerals.

Happy Planet recently launched Happy Planet Shots, a 75-ml all-natural shot made from real fruit juice, vitamins and specifically selected herbs from around the world. The product targets onthe-go people, says Randal lus, vice-president of brand development, Happy Planet Foods, and addresses four different "need" states: Energy Plus, for alertness; Immunity, to jump-start the immune system; Detox, to rid the body of harmful toxins; and Glow, for skin health.

"People can't afford to miss work or be sick and understand the critical role that diet plays in everyday health," says lus. "They are seeking ways to boost the immune system so they don't miss that exam at school or that important meeting at work."

Many of the herbs found in Happy Planet Shots have been used for thousands of years and are now playing an important role in daily health. Fucoidan, for example, comes from brown algae in Japan that helps prevent the common cold and flu and is the main ingredient in the immunity shot.

Agriculture and Agri-Food Canada (AAFC) data reveals that Canadians spend more than \$2.7 annually on functional food, highlighting that the

sector remains a promising industry estimated to reach \$15

Growing Strong

Consumers aren't always familiar with how to use a product, so recipes, in-store seminars and dietitians can help steer people in the right direction. "There is so much selection in the grocery store and people feel overwhelmed," says Salib Huber. "If they are used to picking up carrots, broccoli and cauliflower every week. then they won't know what to do with bok choy."

AAFC foresees the immuneboosting products segment continuing to expand as consumer become more educated about antioxidants. "friendly" bacteria and other nutrients in their food products. "Think about echinacea, for instance. Ten years ago, the majority of people wouldn't know what you are talking about," says lus. "Today the majority recognize it as a plant traditionally used to help boost the immune system and fight off colds."

