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## **Nutrition for Healthy Immunity**

This information does not replace proper medical advice.

**Follow government advice on self-isolation, handwashing and physical distancing.** Do not change any prescription medication without consulting your doctor Don't eat foods on this list that you are allergic to, or do not tolerate well. Nutritional Supplements are not a substitute for a healthy varied diet.

Eating well supports good health overall, including immunity. Diet also has an important impact on immunity by influencing the population of intestinal microbes. These microbes make up the 'gut microbiome' which has a significant impact on how the immune system works.

For everyone, children as well as adults, these help support healthy immune function,

- **Protein** is important for immune function. Fish, eggs, meat, and poultry provide protein from animal sources. Vegetarian protein sources include tofu, beans, mushrooms, nuts and seeds.
- **Zinc** is vital for immunity and we use more of it to fight infection. Zinc is provided by fish, eggs and meat. Nuts and seeds, especially pumpkin seeds are rich in zinc, as well as providing protein.
- Vitamin C is found in an array of fruits and vegetables. If you choose a variety of brightly coloured plant foods you will obtain a range of beneficial nutrients including vitamin C and other important compounds. Fruits that are rich in vitamin C include citrus fruits such as oranges and lemons, which also contain flavonoids that help vitamin C to work more effectively. Kiwifruit are rich in vitamin C and contain fibre that supports the growth of beneficial microbes in the intestines. Blackcurrants, blueberries and other dark red and purple berries pack a powerful punch of nutrients including flavonoids and vitamin C. Vegetables that provide vitamin C include garden peas, broccoli, watercress and cabbage.
- Apples contain a helpful antioxidant called quercetin, and also contain pectin, a valuable prebiotic fibre. Quercetin is found in onions, especially red onions
- **Red yellow and orange vegetables** such as sweet potatoes, butternut squash, red and yellow peppers and tomatoes are nutritionally beneficial providing carotenoids that also help immune function.
- **Mushrooms** Exotic mushrooms such as Shiitake and Oyster varieties and the classic white button mushroom all provide useful nutrients. As well as providing protein, fibre and several vitamins, all mushrooms contain beta-glucans, compounds that help stimulate a healthy immune response. Mushrooms in a stir-fry with colourful peppers and carrots is a good combination.
- **Garlic** a flavourful addition to many foods, garlic has a number of natural compounds to support your health. Garlic contains sulphur-containing compounds, found in all Allium vegetables like onion, scallion and leek. The fibre content of the Allium vegetables helps to support healthful balance of microbes in the intestine, which are now recognised as important for immunity. Garlic mushrooms give a super dish of immune support!
- Cultured foods such as yoghurt, kefir and sauerkraut help provide beneficial bacteria.
- Leafy green vegetables provide folate, vitamin C and prebiotic fibre to support a healthy broad range of microbes (more diversity) in the intestine.
- Vitamin D is important for immunity. Most people in the UK need to supplement at least in winter, and if they have limited sun exposure. These are general guidelines:
  - Vitamin D<sub>3</sub> dose for children 1-12 years is 400 IU per day unless advised otherwise
  - Vitamin D<sub>3</sub> dose for adults is 800 IU per day unless advised otherwise