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Those with a low platelet count benefit from a healthy diet

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Certain foods such as leafy green vegetables could be just what the doctor ordered

Thrombocytes or platelets are colourless blood cells that assist in blood clotting by forming plugs in blood vessel holes. A healthy person has between 150,000 to 400,000 platelets per microlitre of blood.

However, chemotherapy, radiotherapy, dengue fever, chronic hepatitis, viral infection or imbalances in the immune system can cause a sub-normal platelet count.

The telltale signs of thrombocytopenia are easy or excessive bruising, superficial bleeding into the skin that appears as a reddish-purple rash, prolonged bleeding from cuts, spontaneous bleeding from the gums or nose, blood in urine or stools, or profuse bleeding during surgery or after dental work.

"When people develop low platelets, it is often because the body develops an immune response to platelets. When this happens, we usually prescribe a steroid, which is an immune suppressant and anti-inflammatory medication. So theoretically, an anti-inflammatory diet should be helpful in supporting one's immune system," says Dr Sunita Mishra, medical director for Clinical Innovation and Care Delivery, Swedish Medical Group in Seattle, Washington.

However, Mishra says she isn't aware of any studies that have looked at the clinical response of using antioxidants and an anti-inflammatory diet to treat thrombocytopenia.

Since the average lifespan of each platelet is around 10 days, the body needs to constantly keep up the production of new platelets. These are made in the bone marrow.

The Platelet Disorder Support Association recommends a macrobiotic contractive diet that should include foods like leafy green vegetables rich in vitamin K which is essential for blood clotting and platelet creation.

Charmain Tan, registered dietitian at Seventeen Nutrition Consultants advises: "Green leafy vegetables such as broccoli, spinach, kale, Chinese vegetables like choi sum and kai lan are loaded with antioxidants and rich in vitamins and minerals which are believed to reduce inflammation and help increase platelet count. Beetroot juice is a potent antioxidant that helps fight against disease. Red guava is becoming noted for its role in improving platelets, and research is ongoing. Blueberries, blackberries and raspberries contain phytonutrients that help neutralise free radicals and aid in fighting low platelets."

But the Abramson Cancer Centre of the University of Pennsylvania cautions against eating raw

Dr Rachna T.

There has never

vegetables when one's platelet count Shroff is low, as they may damage the intestinal lining. To ease digestion, steam vegetables until soft, or mix into baked dishes.

According to a study that appeared in the September 1999 issue of *The American Journal of Clinical Nutrition*, researchers found that antioxidants such as vitamin E and phytoestrogens found in whole grains appear to increase blood platelet levels by reducing the platelet-aggregating effects of the blood.

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Raymond Chung, nutritionist at Albert Place Practice and Mineralysis recommends walnuts, cooked carrots and tomatoes, black sesame, squid, peanuts (especially skin-on), lean meats and milk for promoting platelet count.

Sufficient intake of vitamin C and flavonoids from natural foods like lemon, broccoli, spinach, bell pepper and kiwi are also beneficial for low platelet counts. He also advises consuming the orange's white fibrous rind as it contains high levels of flavonoids, which improve blood vessel elasticity.

But Chung cautions that since a low platelet count has already predisposed a person towards bleeding, any foods (such as garlic and green tea) or nutritional supplements (such as Nattokinase or omega-3 fish oil) that suppresses platelet activity should be avoided.

He recommends telling your doctor of your condition to prevent them from prescribing certain medications or supplements that might further suppress platelet functions.

According to cancer nutrition expert Dr Kim Dalzell of the Midwestern Regional Medical Centre, sesame oil has properties that raise platelet levels. Papaya leaf extract could also help, according to a 2009 study from Malaysia's AIMST University.

When quizzed on the studies above Dr Rachna T. Shroff, assistant professor at the department of GI medical oncology in Houston, Texas, says: "These types of studies haven't truly been validated by multiple sources, so I'm uncertain about their efficacy. There has never been any data about specific foods being able to improve or boost a low platelet count. This is a question I get asked a lot, but nothing has been proven.

"There are no easy methods for increasing a platelet count," says Shroff. "Certain injections can be given to counteract chemotherapy effects on red blood cells and white blood cells, but not platelets.

"Certain chemotherapies do, however, lower platelet counts by increasing venous pressures in the liver circulation. Given that the spleen's natural job is to dispose of old blood cells, sometimes an effect of an enlarging spleen is what is called hypersplenism, where the spleen's activity diminishes the platelet counts.

"In this setting, we might consider a splenic embolisation, where the blood supply to the spleen is decreased, thereby causing less hypersplenism and improved platelet counts."

Topics: LIFE Blood Clot Diet

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