

Warfarin (brand name Coumadin) is a prescription medication that interferes with normal blood clotting (coagulation). It is also called an anticoagulant. Many people refer to these medicines as "blood thinners," although they do not actually cause the blood to become less thick, only less likely to clot.

The normal clotting mechanism is a complex process that involves multiple substances (clotting factors). These factors are produced by the liver, and act in sequence to form a blood clot. In order for the liver to produce some of the clotting factors, adequate amounts of vitamin K must be available. Warfarin blocks the availability of vitamin K and limits the production of these clotting factors. As a result, the clotting mechanism is disrupted and it takes longer for the blood to clot.

Warfarin is usually prescribed for patients at risk for developing harmful blood clots (patients with atrial fibrillation or clotting disorders) or for patients who have already been diagnosed with harmful blood clots (deep venous thrombosis or DVT, pulmonary embolism or PE). Warfarin does not dissolve clots, but it keeps them from increasing in size and moving to another part of the body. Warfarin prevents and treats serious medical problems caused by blood clots.

The body's clotting ability is monitored closely while on warfarin using a blood test called the INR. The goal range for INR is 2.0-3.0 (normal is 1.0). In this range, blood clotting is decreased adequately for treatment, but is not decreased so much that excessive bleeding occurs. The dose of warfarin is periodically adjusted to keep the INR in the target range. Getting the INR in range and keeping it there can sometimes be challenging. Foods that are high in vitamin K such as leafy green vegetables can interfere with the effect of warfarin. Also, warfarin has a lot of medication interactions, especially with antibiotics, that can cause the INR to go out of range. It is important to monitor INR closely when adding or changing medications or when there is a big change in diet.

Some patients on warfarin will need to stay on it indefinitely. Other patients will only need to take it for a short period of time, most commonly somewhere between 3 and 12 months.