

Information Sheet 17: For Men on Warfarin

Key Points

- Eating certain foods can affect how warfarin works
- It is important to eat consistent amounts of these foods in order to maintain stable warfarin activity
- Consult your doctor before making any drastic changes to your diet

Introduction

Warfarin is an anti-coagulant drug that decreases the risk of blood clot formation in patients with chronic atrial fibrillation, prosthetic heart valves or coronary artery disease [1].

Since warfarin exerts its effects by inhibit vitamin K activity, eating foods high in Vitamin K can reduce the activity of warfarin. This is not to say that these foods should be avoided completely, but rather, it is important to eat consistent amounts of these foods in order to maintain stable warfarin activity [1]. Always consult with your doctor before making significant changes to your diet.

Green Leafy Vegetables and Other Vitamin K-rich Foods

The main dietary source of vitamin K is green leafy vegetables, which contain 113-440 µg of Vitamin K1 per 100g of vegetable [2].



Interaction with warfarin:

- Eating green leafy vegetables and other vitamin -rich foods can reduce warfarin activity and increase the risk of blood clot formation [1]

Recommendation:

- Eating consistent amounts of green leafy vegetables and other vitamin K-rich foods can help maintain a stable international normalised ratio (INR) [1]

Foods rich in Vitamin K

Green leafy vegetables high in vitamin K [2]	Other Vitamin-K rich Foods [2]
<ul style="list-style-type: none">- Kale- Spinach- Collards- Broccoli raab- Lettuce	<ul style="list-style-type: none">- Broccoli- Brussels sprouts- Asparagus- Celery- Avocado

Alcohol

Interaction with warfarin:

- Drinking large amounts of alcohol may increase warfarin activity and increase the risk of bleeding [3]

Recommendation:

- For the average male, it is not recommended to drink more than 3 standard drinks per day [4]
- If you are on warfarin and have **liver disease**, it is not recommended to drink any alcohol [3]



Grapefruit Juice, Cranberry Juice, Pomegranate Juice

Interaction with warfarin:

- Drinking large amounts of grapefruit, cranberry or pomegranate juice may increase warfarin activity and increase the risk of bleeding [5-8]

Recommendation:

- If drinking grapefruit, cranberry or pomegranate juice while on warfarin therapy, drink consistently and in moderation
- Avoid drinking more than 250ml of cranberry juice per day while on warfarin therapy [7]

Green Tea

Interaction with warfarin:

- Drinking green tea is unlikely to reduce warfarin activity [9]

Recommendation:

- If you are planning to drink large amounts of green tea, consuming a consistent amount can help maintain stable warfarin activity [9]



Summary of Research

Vitamin K intake

In a small intervention study with 12 patients, a 500% increase in vitamin K intake significantly decreased warfarin activity and an 80% decrease in vitamin K intake significantly increased warfarin activity [10].

Grapefruit Juice

In a study with 10 men, drinking 1.5L of frozen grapefruit juice per day for a week did not increase INR. However, in one case study, a two-fold increase in INR was attributed to drinking 1.5L of grapefruit juice a day [8]. It appears that drinking amounts less than that does not affect warfarin activity.

Cranberry Juice

A review of the literature identified at least 12 cases of an interaction between warfarin and cranberry juice. The consumption amounts in two of these studies were reported to be 2L/day and

710ml/day [7]. In contrast, a controlled study in 2006 found that drinking 250ml of cranberry juice a day for seven days did not affect INR. This study suggests that drinking 250ml or less of cranberry juice is unlikely to affect INR and increase bleeding risks [11].

Pomegranate Juice

Two case reports describe a possible interaction between pomegranate juice and warfarin. In 2009, a 64 year-old woman had stable INR while drinking a glass of pomegranate juice 2-3 times a week. However, after she was instructed to stop drinking pomegranate juice, her INR dropped [5]. In another case report in 2010, the INR of a 37-year-old woman increased to 14 after drinking 3L of pomegranate juice over the course of one week [6].

Green Tea

Although green tea leaves contain large amounts of vitamin K (1428 µg/100g), evidence suggests drinking green tea is unlikely to affect warfarin activity. This is because brewed green tea has significantly lower amounts of vitamin K (0.03 µg/100g). However, drinking large amounts of green tea may affect warfarin activity by increasing total vitamin K intake. In a case study, a patient's INR dropped from 3.79 to 1.14 after drinking 3.8-5.7L of green tea per day [12]. In addition, the vitamin K content of brewed green tea can vary depending on the amount of tea leaves used to brew the tea [9].

References

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