

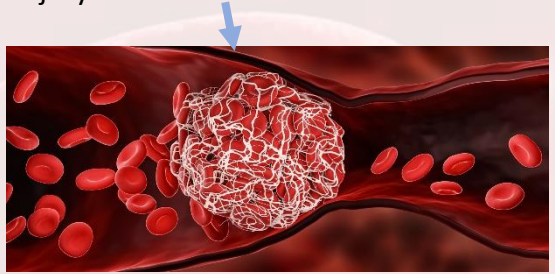
A 3D illustration of a blood vessel. The vessel is a large, reddish-orange tube with a textured surface. Inside the vessel, numerous red blood cells are visible, some in the foreground and some further back. There are also a few white blood cells, which are smaller and have a bumpy, yellowish-green surface. The background is a warm, reddish-orange color with some light rays or a glow emanating from the center of the vessel.

A brief guide on

# Blood Thinners

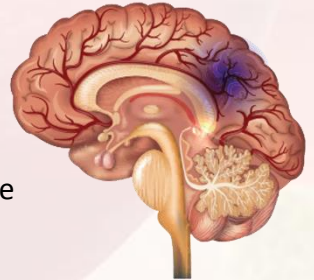
## Introduction:

Whenever you get a cut, the resultant bleeding stops after a few minutes. Why? Because the blood forms a 'clot' at the injury site. This clot obstructs further blood flow, hence stopping the bleeding. A delay in clot formation will lead to excessive bleeding. If clot forms in critical areas like heart, brain, lungs etc. it can obstruct blood flow leading to major health issues like heart attack, stroke etc.



Few patients may be at a higher risk for abnormal clot formation or may already have clots formed at these critical areas. Medicines which reduce body's ability to form blood clots are called 'anti-coagulants', or in common term 'blood-thinners'. While blood thinners help maintain blood flow to critical organs, they increase bleeding risk.

## STROKE

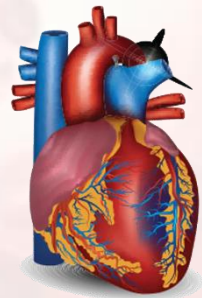


**BLOOD CLOT BLOCKS  
BLOOD FLOW TO THE BRAIN**

## Anti-platelet drugs:

Aspirin, clopidogrel, ticagrelor, or prasugrel are classified as 'anti-platelet' drugs. While they also reduce clot formation, they are not anticoagulants (or blood-thinners) in true sense.

## HEART ATTACK



**BLOOD CLOT BLOCKS  
BLOOD FLOW TO THE HEART MUSCLE**

## True anticoagulants:

- (1) Warfarin or Acenocoumarin (Acitrom): Taking these drugs demand a certain discipline in daily lifestyle. Rest of the document is directed to these medicines and will be referred to as '**VKA**'.
- (2) Heparin or Enoxaparin: These are injectable blood thinners.
- (3) Dabigatran, Rivaroxaban, or Apixaban: These are new-generation blood thinners (NOAC) which require less lifestyle restrictions compared to VKA.

## **Essentials for patients on VKA**

### **Warfarin or Acenocoumarin (Acitrom)**

☑ INR (blood test) measures how long it takes for your blood to clot. INR is checked periodically (weekly or monthly) and VKA dose is adjusted to maintain INR within a desired level. A typical adjustment is as follows:

INR <2	Higher risk for blood clot	Needs dose increase
INR 2-3.5	Ideal value (patient specific)	
INR 3.5-5	Risk for bleeding	Needs dose reduction
INR >5	High risk for bleeding	Urgent attention
INR >10	Very high risk for bleeding	Emergency

INR >2 with active bleeding      Needs urgent attention

☑ It is important to get the INR test done at around the same time of the day, from the same lab every time.

☑ These food items will reduce the efficacy of VKA. Either avoid eating such food items or eat a fixed serving every day:

Spinach, Fenugreek, Green cabbage, Lettuce, Green beans, Kale, Broccoli, Brussels sprouts, Asparagus

☑ Dietary items which can increase the bleeding risk should be minimized:

Beetroot, Cranberry (or juice), Garlic, Fish oil, Ginger, Papaya extract.

☑ VKA interacts with multiple medicines. Inform your doctor whenever you take any new medicine (particularly antibiotics, pain killers or herbal products).

☑ Any concurrent illness can affect INR levels.

☑ VKA needs to be stopped a few days prior to any invasive procedure or surgery. NEVER stop these medicines without consulting your doctor first.

☑ Seek urgent attention if you notice any bleeding which does not stop within a few minutes. Abnormal bruises or swelling may suggest haemorrhage and should be reported urgently.

☑ Women should use contraception as pregnancy is not advisable while taking VKA.

☑ If you miss one dose of VKA, simply take the next dose as scheduled. If you miss more than 1 dose in succession, inform your doctor.

## Caution

Patients on blood thinners (VKA or NOAC) are at higher risk for bleeding. Here are few lifestyle tips to reduce the bleeding risk.

1. Brush your teeth using soft bristles. Do not floss. Use mouthwash liberally.
2. Shave with electric razor instead of blades. Hair removal cream is an excellent alternative.
3. Keep nails short. Use nail file rather than nail-cutter.
4. Do not walk barefoot. Wear soft comfortable footwear.
5. Avoid contact sports or anything that involve risk of injury.
6. Avoid constipation/straining. Use laxatives.
7. Apply prolonged manual pressure to injury sites like needle-stick, minor cuts etc.
8. Avoid using blades/knife. Safety scissors are preferred.
9. Use air humidifiers, particularly in winters. Dry air irritates the nose and may cause mucosal bleeding.

### Miscellaneous:

- It is a good idea to carry a small note in your wallet with all medicines listed in case you need any urgent medical attention.
- Minor skin bruising (patches of skin discolouration) is common and is not worrisome, but if new bruises are forming more frequently, you should seek medical attention.
- Black stool is a sign of bleeding and should be addressed urgently.



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