

24. Various questions, 1

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Q1: "I am 32 years old. I have factor V Leiden. I have had pain in the lower right side of my back for about 6 months. My Dr. has done numerous CT scans and ultrasounds to determine whether I have another clot. It is either not there, or is undetectable, and he is treating it as a chronic pain case. He states chronic pain can come from undetectable small blood clots and can be associated with a blood clotting disorder. The pain becomes more intense 1 week before my period and during my period. He has also ruled out endometriosis. Have you heard of this before in your patients? I am baffled as to why this pain won't go away."

A1: While pain on one side in the lower back can be due to certain types of blood clots, there are many other reasons for pain in that area. I would need to take the patient's full past medical history, hear details about her present condition and all the characteristics of the pain, and perform a full physical examination, before I would be able to make a differential diagnosis list of what I think the patient might have. I would then need to review the studies that have been done so far, and decide whether any other studies would be needed to narrow down the list of possible diagnoses to one likely diagnosis. It typically takes one hour or more with a patient in clinic to do this. Unfortunately, all this cannot be done through the internet. I am, therefore, not able to give any solid assessment or advice.

Q2: "How long does it take for a leg to die before they must amputate?"

A2: A few hours (approximately 1-6 hours) of no blood flow to the leg will lead to irreversible damage (gangrene) that may require amputation. If an arterial occlusion forms slowly over several months or years, there is time for collateral vessels (= bypassing vessels) to form and the leg will get oxygen through those vessels; the patient may have pain when walking (= claudication), but the leg does not die and amputation is not necessary. However, if there is an acute arterial occlusion, for example because of an arterial thrombus, blood flow ceases immediately. This is an emergency. If blood flow is not restored within a few hours, toes, the lower leg, or even the whole leg need to be amputated, depending on which artery is occluded.

Q3: "I am currently on Lovenox® for pregnancy. After this child, what is the safe waiting period before I could get pregnant and be on Lovenox again?"

A3: Obstetricians quote data that a 2 year interval between births is optimal for good pregnancy outcome, i.e. a waiting period of 15 months. The same is likely true for the patient who is treated during the pregnancies with heparin or low molecular weight heparin, such as Lovenox.

Q4: "Is it true that FVLeiden research for humans was initiated at the UNC [= University of North Carolina] upon discovering a high incidence of blood clotting among Irish Setters?"

A4: Not true. FV Leiden research originated in Malmö, Sweden - the researcher Björn Dahlbäck first described APC resistance in 1993. The genetic abnormality that causes APC resistance was discovered in 1994 in Leiden, Holland. UNC has had, for many years, a well known dog colony of Irish Setters with hemophilia A (= factor 8 deficiency), and much of the research on treatment of patients with hemophilia has been done (and is being done) at UNC. However, there are no dogs with factor V Leiden.

Q5: "How much time was spent researching FVLeiden before genetic testing became available in 1993?"

A5: In 1993 it was first published, that a Scandinavian family, in which several family members had venous blood clots, had an abnormal laboratory test result: a resistance to activated protein C in a special aPTT test. One year later, in 1994, it was found that APC resistance was due to a genetic mutation in the factor V Leiden gene. Genetic testing for factor V Leiden became available in research institutions in 1994, and over the next few years also in commercial laboratories.

Q6: "I was told I'll need to be on coumadin® for life. I was also diagnosed with premature ovarian failure and have been post-menopausal for over 4 years. Are there any additional steps or tests I need to take to ensure good health while on coumadin?"

A6: No additional steps or tests are needed (also see [Q/A 25](#)). Independent of the fact that the patient is on coumadin, she may want to consider a bone density study, since she has premature ovarian failure.