

**Anticoagulation
FORUM**

Webinar ▶
Lunch & Learn

Participating with



The Impact of Blood Clots and Clotting Disorders on Women's Health

Thursday | January 30, 2020 | 12:00 PM ET

Panelists:

Rachel Rosovsky, MD, MPH

Nancy Shapiro, PharmD, FCCP, BCACP, CACP

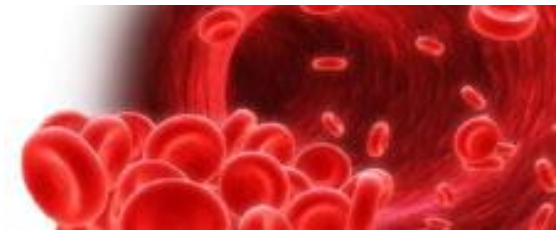
Tracy Minichiello, MD

Sara Vazquez, PharmD, BCPS, CACP

Diane Wirth, RN, MSN, ANP-BC, CACP



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Presenters

Rachel Rosovsky, MD, MPH

- Assistant Professor of Medicine, Harvard Medical School
- Director of Thrombosis Research, Division of Hematology, Massachusetts General Hospital

Nancy Shapiro, PharmD, FCCP, BCACP, CACP

- Clinical Professor, Department of Pharmacy, University of Illinois at Chicago College of Pharmacy

Tracy Minichiello, MD

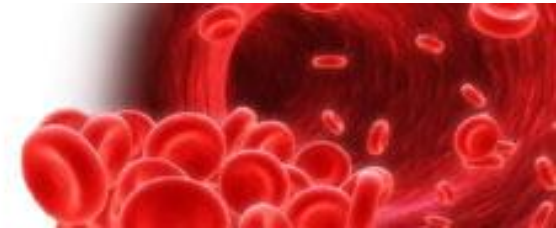
- Professor of Medicine, University of California, San Francisco
- Chief of Anticoagulation and Thrombosis Services, San Francisco VA Medical Center

Sara Vazquez, PharmD, BCPS, CACP

- Clinical Pharmacist, University of Utah Health Care Thrombosis Center
- Adjunct Associate Professor of Pharmacotherapy, University of Utah College of Pharmacy

Diane Wirth, RN, MSN, ANP-BC, CACP

- Adult Nurse Practitioner, Grady Memorial Hospital
- Interim Executive Director of Cardiovascular Services and Manager of the Heart Failure Program, Grady Memorial Hospital

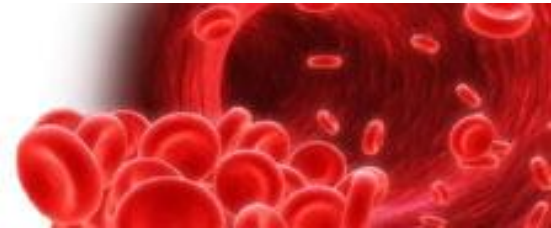


Websites for Free Resources

National Blood Clot Alliance: stoptheclot.org

Anticoagulation Forum: acforum.org

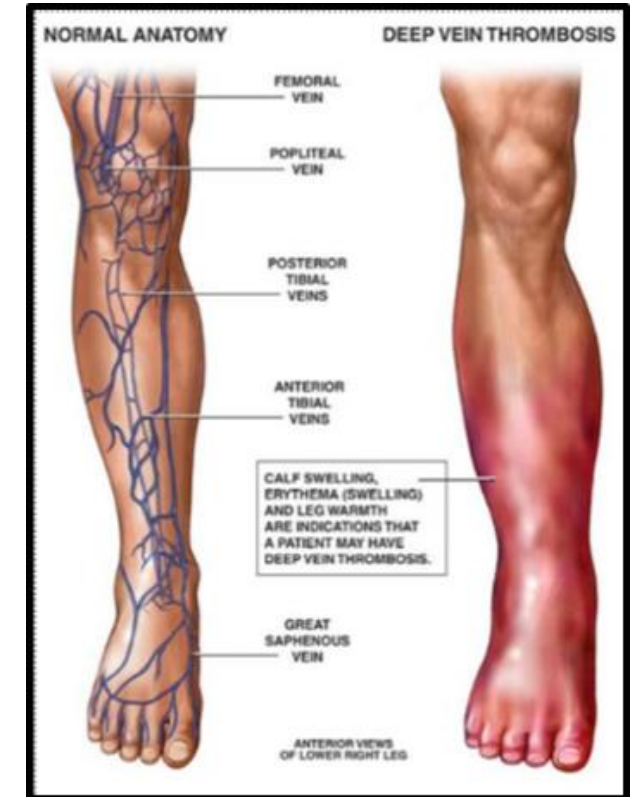
Centers of Excellence Resource Center: Excellence.acforum.org



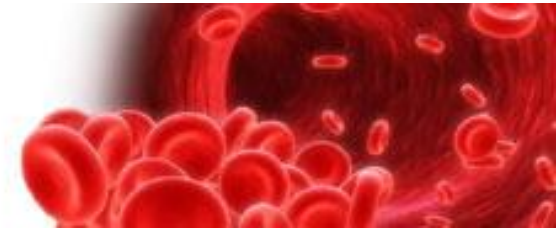
Basics of Venous Thrombosis

- Blood Clots in the Veins

- Blood clots can form in the deep veins, most commonly in a person's legs but sometimes in the arms and other locations. This is called deep vein thrombosis (DVT). They cause symptoms by blocking flow of blood through the vein.
- Left untreated, blood clots can break off and travel to the lungs, which can be life threatening. This is called pulmonary embolism(PE).
- About 900,000 people are affected by blood clots in the U.S. each year, and up to 100,000 of these individuals will lose their life.



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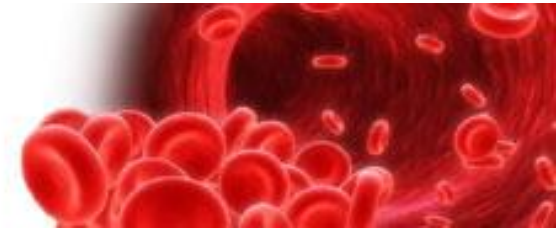
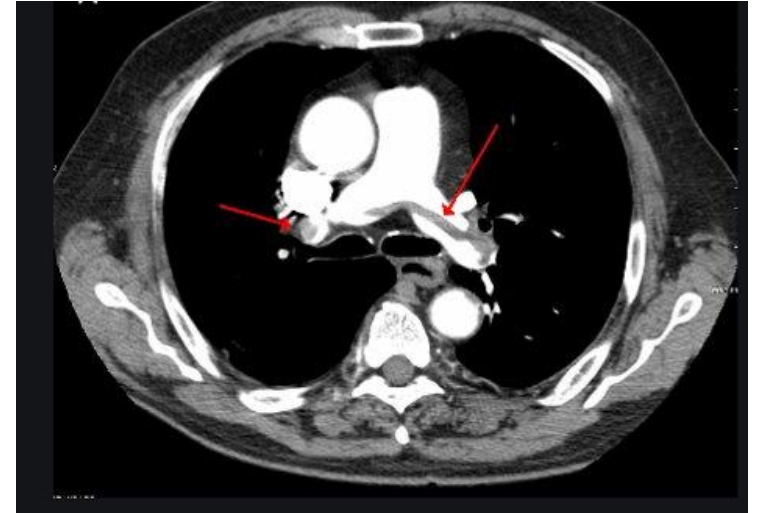
Signs and Symptoms of VTE include:

A blood clot in the leg or arm:

- Swelling, usually in one leg or arm
- Pain or tenderness in the leg or arm not caused by injury
- Skin that is warm to the touch
- Redness or discoloration of the skin

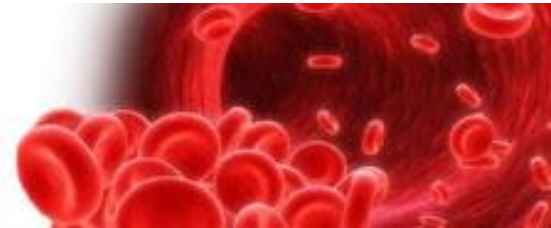
A blood clot in the lung:

- Difficulty breathing
- Chest pain that worsens with a deep breath
- Coughing or coughing up blood



Treatment of Venous Thrombosis

- Anticoagulation Medications
 - Heparin – intravenous
 - Low molecular weight heparin – subcutaneous
 - Warfarin – oral
 - DOACs – oral
 - Apixaban, Rivaroxaban, Dabigatran, Edoxaban



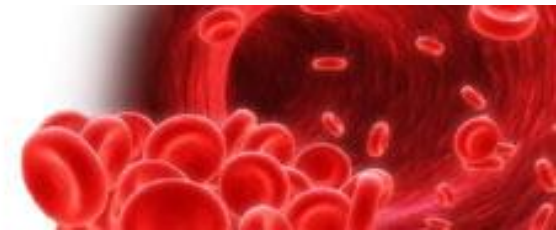
Risk Factors for Venous Thrombosis (VTE)

Women face clotting risks unique to their gender, including:

- Pregnancy and childbirth
- Hormone therapy for birth control (pill, patch, ring)
- Hormone therapy used to treat menopause symptoms
- Cancer
- Hormone therapy for cancer



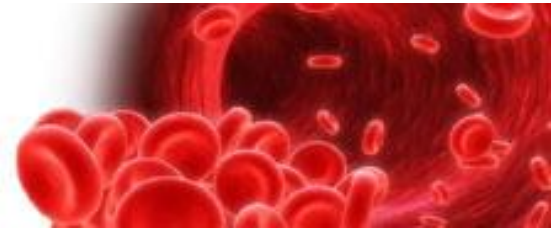
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Risk Factor for Venous Thrombosis (VTE)

In addition to pregnancy/childbirth and hormonal therapies, risk factors include:

- Hospitalization and surgery
- Cancer and some cancer treatments
- Injury or physical trauma
- Personal history of clotting
- Family history of clotting
- Immobility
- Obesity

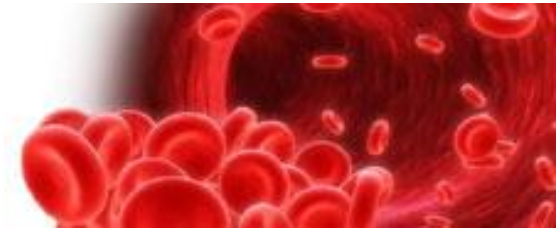


Estrogen-Based or Hormonal Birth Control

- Most women can take hormonal birth control safely or experience no complications. However, hormonal birth control in any form (pill, patch, ring) can place a woman at increased risk for blood clots.
- Most forms of birth control contain estrogen and synthetic progesterone, or progestin, and cause the body to hormonally imitate pregnancy. This prevents pregnancy but also raises clotting risk.
- These combined contraceptives increase clotting risk 2-3 times over that of nonusers; risk is further increased in women with clotting disorders, history of blood clots and other risk factors.
- Progestin-only contraceptives (pill, IUD, implant, injectable) generally do not increase blood clot risk.



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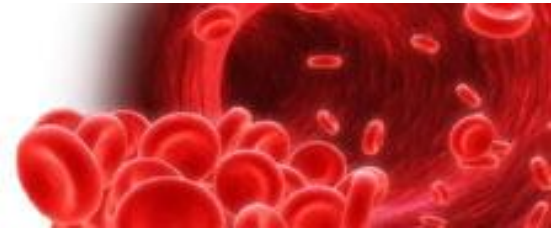


Hormone Treatment for Menopause Symptoms

- Hormone treatments usually contain one or more female hormones – estrogen plus synthetic progesterone or progestin – and are used to manage menopause symptoms (e.g., mood changes, hot flashes, vaginal dryness).
- The presence of estrogen in these therapies, which include pills, patches, rings, and vaginal creams, can increase clotting risk.



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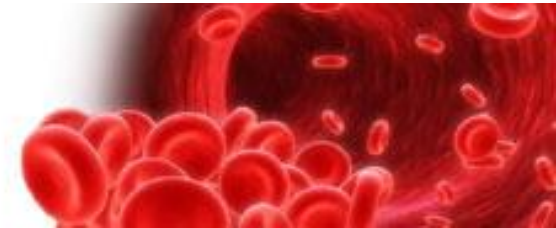


Clotting Risk: Pregnancy and Childbirth

- The increased tendency to clot during pregnancy is the body's natural biological response intended to protect women against potentially dangerous bleeding that can happen during childbirth, miscarriage.
- Hormonal changes during pregnancy cause change in blood flow, blood volume, blood composition, increasing clotting risk five times higher than among non-pregnant women.
- Risk is increased throughout pregnancy but is greatest in the three months after the baby is born and also increases with C-sections.



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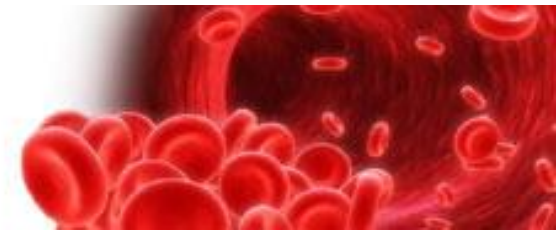
Women with Venous Thrombosis

– Challenges for the Anticoagulation Provider

- Birth control counseling
- Managing VTE risk during pregnancy
- Managing anticoagulation during pregnancy
- Hormonal therapy options



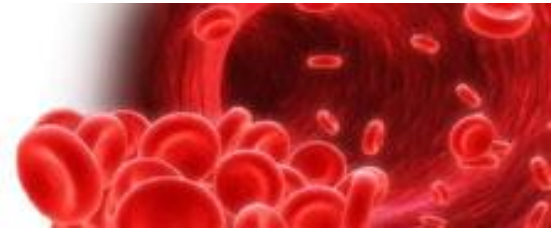
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The Patient Experience



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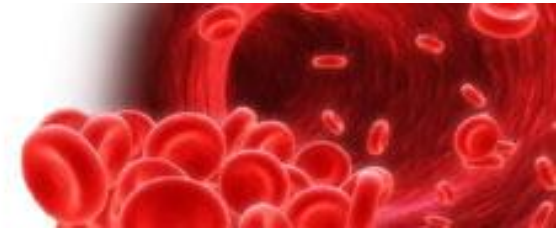
Thrombophilia and Birth Control Options

A 29-year-old woman is found to be heterozygous for Factor V Leiden mutation after she develops a lower extremity deep vein thrombosis while on OCPs.

- What is the risk of VTE on OCP? Do all OCPS increase risk of thrombosis equally?
- What do you recommend for contraception now?
- What should she expect during her period? How do you manage heavy menstrual bleeding in women on anticoagulants?
- How long should she remain on anticoagulation?



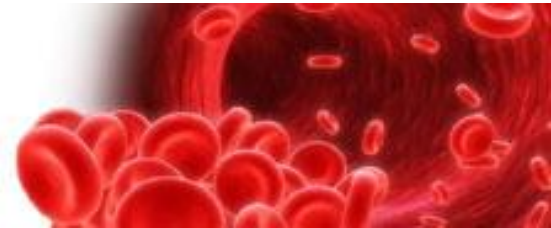
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Thrombophilia and Birth Control Options

A 29-year-old woman is found to be heterozygous for Factor V Leiden Mutation. She has no personal history of thrombosis, but her mother developed PE at 55 resulting in thrombophilia testing and discovery of the mutation.

- What do you recommend for contraception? Can she use an OCP?
- Why don't providers test for clotting disorders routinely in all women before starting OCPs?



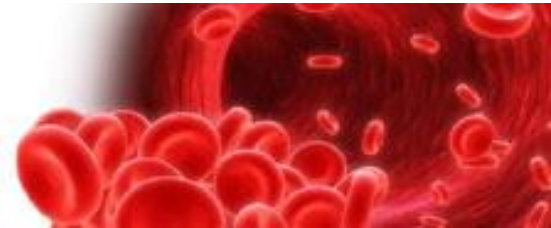
Thrombophilia and IVF/Pregnancy

OCPS are stopped and an IUD is placed. A follow up ultrasound is negative at 6 months. Her d-dimer is normal. She has no lower extremity symptoms. Her BMI is 23. Her anticoagulation is stopped. Four years later she is struggling with infertility and has decided to consider IVF.

- Will IVF increase her risk of thrombosis?
- If she becomes pregnant should she receive anticoagulation during pregnancy? Postpartum?



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Thrombosis and Hormonal Therapy

A 53-year-old woman with history of postpartum deep vein thrombosis (DVT) 15 years ago, no longer on anticoagulation, presents with complaints of hot flashes and vaginal dryness. Her last period was 16 months ago.

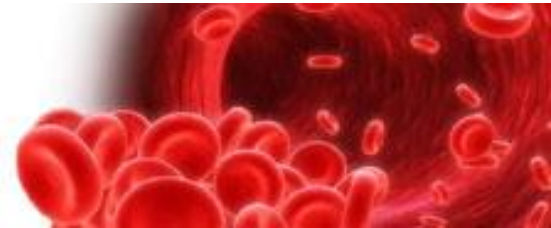
- She would like to know if she can use hormonal therapy.

A 53-year-old woman with history of unprovoked pulmonary embolism (PE) 2 years ago maintained on low dose rivaroxaban (Xarelto) presents with complaints of hot flashes and vaginal dryness. Her last period was 16 months ago.

- She would like to know if she can use hormonal therapy.



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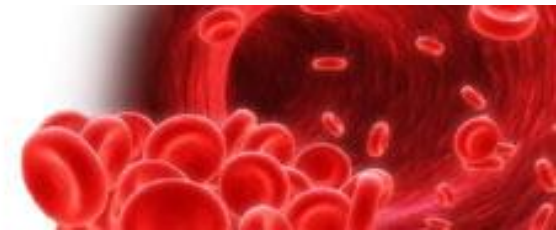
The Thrombophilia Work Up, what it tells you and doesn't tell you

A 29-year-old woman presents to discuss her clotting risk. Her older brother (age 41) developed DVT after flight to Australia. He had testing for thrombophilia which revealed heterozygosity for prothrombin gene mutation. She requests thrombophilia testing which returns completely negative.

- Does this mean she is not at increased risk of VTE?



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Resources

For healthcare professionals:

- AC Forum Resource Center: <https://acforum-excellence.org/Resource-Center>
- Bates et al. American Society of Hematology 2018 guidelines for management of venous thromboembolism: venous thromboembolism in the context of pregnancy . Blood Adv (2018) 2 (22): 3317–3359.
- Bates et al Guidance for the treatment and prevention of obstetric-associated venous thromboembolism. Journal of Thrombosis and Thrombolysis.2016; 41;92–128
- ACOG Guidelines: <https://www.acog.org>

For patients and the public:

- National Blood Clot Alliance
 - For resources and educational content about blood clots and clotting disorders: <https://www.stoptheclot.org>
 - For resources focused on the continuum of blood clot risks women face throughout their lifetime: <https://womenandbloodclots.org>
 - To join NBCA's *Stop the Clot*® Online Community and Support Group, powered by Inspire, where blood clot survivors gather to share experiences and information: <https://www.stoptheclot.org/peer-support>

