



The Beat

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Patients Are Asking: Does Flying Increase My Risk for a Clot?



Susan Kahn

Home is where the heart is, though you might have to travel a long way to get there for the holidays. Long-distance

travel may raise your stress level, but can it also raise your risk of getting a blood clot? Dr. Susan Kahn, a Professor of Medicine at McGill University and a Canada Research Chair in venous

thromboembolism (VTE), weighs in.

Blood clots affect about 1-2 in 1,000 U.S. adults per year, and the risk may double or triple after a flight that's 4+ hours. One study estimates that 1 in 4,600 travelers will have a VTE event within 4 weeks of a long flight. According to Dr. Kahn, "the actual risk of a travel-related blood clot is quite small, and the average traveler doesn't need to worry about it. Billions of people travel by plane every year, and most of them don't get a blood clot."

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Upcoming Events and Support Groups

New Strategies for the Treatment and Management of Anticoagulant-Associated Bleeding

January 22, 2020
Cleveland, Ohio at the
Cleveland Airport Marriott

March 10, 2020
Baltimore, Maryland at the
Baltimore Waterfront Marriott

In-Person Blood Clot Support Group

January 15, 2020

February 27, 2020

March 17, 2020

April 23, 2020

May 21, 2020

Brigham and Women’s Hospital, Boston, MA

All support groups start at 7:00 PM. To register, email info@natfonline.org or call 617-730-4120.

For more information about any of these events, please visit www.natfonline.org/events or email events@natfonline.org.



Meet the Newest Member of the NATF Team!



Claire is the Associate Director of Events and Outreach at NATF. She is responsible for the planning, marketing, and logistics of all NATF educational events, outreach projects, and fundraising events. Prior to joining NATF, Claire was a Research Coordinator for the Thrombosis Research Group at Brigham and Women’s Hospital.

Claire graduated from the University of New Hampshire with a degree in Biomedical Sciences and is working towards her Master’s in Public Health at Boston University. Outside of work, Claire enjoys road biking, spending time with her black lab, Marge, and playing in several recreational sports leagues.

ABOVE LEFT: *Claire Galvin*
LEFT: *Claire’s black lab, Marge.*

ABOVE: *Claire crossing the finish line after a 150-mile fundraising ride.*

A Dessert that's *Veggie Good!*

Check out this heart-healthy holiday recipe courtesy of Alex Aldeborgh, MS, RDN.




ALMOND BUTTER ZUCCHINI BROWNIES

INGREDIENTS

- 1 cup finely grated zucchini
- 1 cup creamy almond butter
- ½ cup pure maple syrup
- 1 large egg
- ½ tsp vanilla extract
- 1/3 cup cacao powder (or unsweetened cocoa powder)
- ¼ cup almond flour
- ½ tsp baking powder
- ½ tsp kosher salt (optional)
- 1/3 cup dark chocolate chips, plus more for sprinkling on top

INSTRUCTIONS

1. Preheat oven to 350° F. Grease an 8×8-inch baking pan.
2. Use a clean towel to squeeze out as much moisture as possible from shredded zucchini.
3. Whisk together almond butter, maple syrup, egg, and vanilla extract in a medium bowl.
4. Mix together cacao powder, almond flour, baking powder, and salt (if desired) in a separate bowl.
5. Pour wet ingredients into dry ingredients and stir to combine.
6. Fold in shredded zucchini, then chocolate chips.
7. Pour batter into prepared baking pan and top with extra chocolate chips if desired.
8. Bake for 20-25 minutes until brownies are glossy and a toothpick comes out mostly clean.
9. Enjoy!

Find more healthy holiday recipes on Alex's Instagram:  @daisybeet



However, those who already have risk factors for a clot may have a higher risk of developing travel-related VTE. These risk factors include:

- Obesity
- Age over 40
- Use of birth control pills or hormone therapy
- Recent injury or surgery
- Limited mobility
- Pregnancy
- A personal or family history of blood clots
- Active cancer or recent cancer treatment

It's unclear if long-distance air travel is any riskier than car or train travel, but there are factors unique to airplanes that can affect risk:

- Air travelers sit in tight quarters with the back of the knee pressed against the seat. The vein behind the knee is a common area for clots to form.
- Immobility can raise the risk of a clot, but your seat assignment, turbulence, etc. can make it difficult to move around the plane.
- Your body takes in less oxygen when air pressure is lower, and some data suggest that lower oxygen levels can trigger the body's clotting response.
- Dehydration may also increase the risk of a clot and drinking coffee or alcohol on a flight can fast-track dehydration.
- Many people sleep on flights – but if you're sleeping, you aren't moving or hydrating.

The good news is that there are several commonsense methods that can help lower your risk:

- Choose a bulkhead seat or see if your flight offers extra-legroom seating. If not, avoid putting a bag under the seat in front of you so you have more space for your legs and feet.
- Try to move around the plane every 1-2 hours. Selecting an aisle seat can make it easier to get up and walk.
- Avoid sleeping in awkward positions for long periods of time.
- Try not to cross your legs.

Simple Exercises to Do In-Flight



KNEE-TO-CHEST STRETCH

Slightly lean forward and slowly pull your knee into your chest. Hold for 15 seconds on each side.

ANKLE CIRCLES

Raise your feet off the floor and circle them 5 times clockwise and counterclockwise.

FOOT PUMPS AND CALF RAISES

Lift your toes as high as you can and hold for 10 seconds. Then, lower your toes and repeat the exercise with your heels – lift them for 10 seconds while keeping your toes on the floor.

SHOULDER STRETCH

While seated, put your right hand on your left shoulder. Use your left hand to grasp your right elbow and pull down toward your left side. Hold this for 10-15 seconds and repeat on your left side.

**Repeat each exercise 5 times if possible.*



PATIENTS ARE ASKING: DOES FLYING INCREASE MY RISK FOR A CLOT?

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- Avoid wearing tight clothing.
- Drink lots of water and avoid alcohol, caffeine, and sedatives.
- Do some simple exercises in your seat to improve blood flow. (See sidebar on page 4.)

WHAT DO THE GUIDELINES SAY?

2012 American College of Chest Physicians (ACCP) Guidelines

Low-risk travelers should frequently move, perform calf exercises, and sit in an aisle seat if possible.

It's suggested that **high-risk travelers** wear properly fitted, below-knee compression stockings while in flight.

Preventive blood thinners or aspirin are not recommended for long-distance travelers.

2018 American Society of Hematology (ASH) Guidelines

Compression stockings or anticoagulants/aspirin are not recommended for **low-risk travelers**.

"For the average healthy person taking a long flight, we don't recommend anything other than commonsense measures, like walking around the plane and staying hydrated," explains Dr. Kahn, who helped write the guideline.

ASH suggests that **high-risk passengers** use graduated compression stockings or a preventive dose of low-molecular-weight heparin (LMWH) for flights over 4 hours. If these measures aren't practical, travelers can consider taking aspirin.

Because there's still a limited amount of data on travel-related VTE, the ASH recommendations are conditional, meaning that the right course of action may be different for each patient.

The bottom line:

- Travel-related blood clots are rare.
- Moving around and staying hydrated are two ways to stay healthy – both in flight and on the ground.
- Travel-related VTE is an area that needs more research. Clear-cut evidence is lacking.
- Talk to your healthcare provider if you're concerned about developing a blood clot while traveling.

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Blood Clots and Travel: What You Need to Know. Centers for Disease Control and Prevention.

<https://www.cdc.gov/ncbddd/dvt/travel.html>.

Updated February 1, 2019.

Kahn SR, et al. Chest. 2012;141(2):e195s-e226s.

Planes, Trains, and VTE. American Society of Hematology Clinical News. <https://www.ashclinicalnews.org/features/feature-articles/planes-trains-vtes/>. Updated March 1, 2019.

With Gratitude

Thank you to our board of directors, staff, faculty, donors,
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We look forward to 2020!



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