



# The Beat

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## Physical Therapy: A Role in Blood Clot Management?

Dr. Ellen Hillegass,  
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We often hear that physical therapy (PT) helps patients get back on their feet after an injury, surgery, stroke, or other medical issue. Physical therapists (PTs) can also play an important role in identifying signs and symptoms of a potential blood clot and in helping patients recover from clots. To learn how PTs can help with blood clot prevention and management, we turned to Dr. Ellen Hillegass, who specializes in PT for the heart and lungs (also known as cardiopulmonary PT). Dr. Hillegass is an Adjunct Professor at Mercer University in Atlanta, GA.

### THE CRITICAL ROLE OF PTS

According to Dr. Hillegass, the core focus of PT is to help patients, including those who have had a blood clot, to get moving as quickly and safely as possible. "Our big thing is to get people mobile to prevent them from getting clots," says Dr. Hillegass.

*"If a patient has had a blood clot, then our role is first to identify when it's safe to get up and be mobile, and then to teach them about signs and symptoms that are abnormal."*

PTs are often brought in to help patients get back to their activities of daily living shortly after an injury or surgical procedure – a critical time in a patient's recovery. According to Dr. Hillegass, the first 28 days on average is when medical teams often see first-time or recurrent blood clots (patients may be most vulnerable to blood clots 28 days after an orthopedic surgery; for heart or chest surgery, this time window may be shorter). Patients who are discharged from the hospital to a rehab facility or to home care after surgery will typically see a PT several times a week and can be routinely assessed for risk factors for blood clots.

"We PTs are often the first ones to pick up on signs or symptoms of a blood clot because we are trying to help make patients more mobile, and we may observe that a patient has signs or symptoms of a blood

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## Meet Our New Team Members

NATF is pleased to welcome a few new faces to its Board of Directors and full-time staff.



Joelle Hochman,  
RRT, NATF  
Board Member,  
Chair of Patient  
Engagement

Joelle Hochman, RRT, is the new Chair of Patient Engagement and Education on NATF's Board.

She has worked as a Registered Respiratory Therapist in

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## Upcoming Events

### Virtual Support Groups

**November 16, 2021**

*(There will be no support group in December.)*

*All support groups are at 7:00 PM EST*

### NATF Virtual Fall Summit: *Living in A Post-Pandemic World: What Medicine Has Learned in the Last Year*

**November 18, 2021, 6:30-9:00 PM EST**

This year's Summit will focus on key lessons learned from the COVID-19 pandemic. Covered topics will include:

- COVID-19 and inflammation
- Long COVID syndrome
- The consequences of missed and delayed cardiac care
- Healthcare disparities

To register for these virtual meetings, email [events@natfonline.org](mailto:events@natfonline.org) or call 617-730-4120.



### MEET OUR NEW TEAM MEMBERS

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Massachusetts for over a dozen years. She is the founder of Pulmonary Health Coaching, an online educational coaching practice that assists people living with lung disease to live their best possible lives. She has worked on staff at world-renowned institutions such as Brigham and Women's Hospital and Boston Children's Hospital, and in practice specialties ranging from critical care to pulmonary rehabilitation.

In addition to being a healthcare provider, Joelle herself is also a patient. In 2001 after the birth of her daughter, she survived a pulmonary embolism, learning later that she has the inherited blood clotting disorder Protein S Deficiency. This experience inspired her to return to school to become a respiratory therapist to help others with breathing issues. She acts as a bridge between patients and providers, using her experience in each arena to inform the other.



*Maggie Newberg, Associate Director of Marketing*

Maggie Newberg is NATF's new Associate Director of Marketing. She develops and implements strategic marketing initiatives and oversees internal and external

communications, the website, programs, and events. Maggie has spent years in marketing, project management, and public relations strategy. She has worked across a number of industries, including healthcare, technology, nonprofit, software, and consumer.

Maggie holds an undergraduate degree from Bentley University, where she majored in Information Design and Corporate Communications with a concentration in Public Relations. Outside of the



*Shannon Healey, Associate Director of Patient Education and Outreach*

work week, you can find Maggie exploring the Blue Hills Reservation, getting lost in "life hack" videos, and searching for the best donut shop in Boston!

Shannon Healey is the Associate Director of Patient Education and Outreach at NATF.

In her role, she will provide valuable information and insight for patients about blood clots through *The Beat* newsletter, the *Patient Pulse* webinar series, and other NATF patient programs. Over the last two decades, Shannon's

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clot that would prevent them from being mobile,” says Dr. Hillegass. “We are seeing more clots in the home setting these days because people in this 28-day period are a little mobile but maybe not enough to get the circulatory system moving sufficiently.”

**BLOOD CLOT RISK**

Surgery is only one risk factor for a clot. Other factors may include obesity, diabetes, smoking, or even a change in the use of a blood thinner medication. Pregnancy or hormone therapies containing estrogen (for example, some birth control pills) can also increase the chance of a blood clot. Patients with cancer are at a higher risk for developing clots, as both cancer itself and some chemotherapy treatments increase blood clot risk.

**How PTs help with blood clot prevention and management**

-  On average, patients are most vulnerable to first-time or recurrent blood clots within 28 days after a surgery.
-  Cardiopulmonary PTs are trained to look for symptoms of a blood clot. If they notice any symptoms, they will complete an assessment to help determine if a blood clot is likely.
-  PTs help people maintain/regain mobilization after a surgery/illness, which is critical to preventing blood clots.

If a PT sees symptoms of a blood clot (such as pain or swelling in the leg or unexplained shortness of breath), they may use a risk assessment tool to help determine if a blood clot is likely. The assessment can be completed via a smartphone app or by paper and pencil. “The American Physical Therapy Association is working with a group called Guideline Central to develop apps and pocket guides that will help clinicians assess a patient’s risk for having a blood clot,” says Dr. Hillegass. “These tools

allow PTs to input symptoms and other factors, like whether a patient is a smoker, if the patient has reduced mobility for more than three days, if they are obese, etc.”

Depending on the results of the assessment, the PT might refer a patient for further testing. Dr. Hillegass adds that in some states, PTs can directly refer a patient for testing (like an ultrasound); in other states, the patient will be referred to a healthcare provider for further evaluation.

**PT TAILORED TO THE PATIENT**

Dr. Hillegass stresses that there isn’t a “one-size-fits-all” approach to help patients recover and become more mobile. Patients are evaluated individually on what they can physically do and what their goals are so that a successful plan can be developed. “If a patient is not able to stand up, then we do sit-to-stand type of exercises. If the patient has balance issues, we are going to look at balance,” says Dr. Hillegass. The same individualized approach is taken for people with different types of blood clots: if the patient had a pulmonary embolism (PE), or blood clot in the lungs, a cardiopulmonary PT might concentrate first on breathing exercises to improve ventilation and then assess mobility, particularly focusing on the oxygen in their blood and shortness of breath. For a blood clot in a patient’s arm, a PT might work on moving that arm but add compression (using a compression sleeve) to ease any pain.

For patients with other long-term illnesses like chronic obstructive pulmonary disease (COPD), pulmonary hypertension (PH), or chronic thromboembolic pulmonary hypertension (CTEPH), cardiopulmonary PTs must also take lower oxygen



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levels into account as they help patients become more mobile. Patients with these conditions may get short of breath because the amount of oxygen in their blood may drop during exercise; ultimately, some patients may require oxygen during exercise. In other cases, PTs may use breathing exercises to help patients develop their lung capacity and endurance. PTs should always consider a patient's blood oxygen level when assessing a patient for a blood clot, since shortness of breath or low oxygen levels could be a sign of PE.

PTs also look closely at a patient's age and home life to develop individualized plans that are safe and effective, which home health nurses can then help implement. "One of the biggest things we do is emphasize strongly to our case managers or social workers that they need to have PT come in right away to assess if an environment is safe," says Dr. Hillegass. "We will look at how far the bathroom is from the bed, whether the patient needs extra handrails to get in and out of the tub, if a patient is going to trip over oxygen tubing, etc."

*"We assess a patient's strength and balance, but it's all these other little things at home that you don't even think of that are very, very important, especially if the patient is taking a blood thinner. A bad fall could lead to a serious bleed, and we want to avoid that."*

Assistive devices—such as walkers or chairs that help push patients up to stand—can also be used to help patients become more mobile at home.

### HOW TO ASK FOR PT

Sometimes, it may not be clear whether PT is part of a patient's recovery plan. Dr. Hillegass says that you should feel comfortable asking for PT to help improve mobility since reduced mobility is a risk factor for future blood clots. The requests can be simple: "I want therapy to walk better, I want therapy so I feel stronger, I need some therapy to be able to dress myself or cook and clean at home," says Dr. Hillegass. "And then these care teams will say, 'oh, function!' That's PT and occupational therapy. Let's call them."

Dr. Hillegass stresses that having PT as part of a care team is important to long-term patient health.

"It makes for a shorter length of hospital stay and better care for the patient. Decreased length of stay and improved function are outcomes that have been demonstrated in the scientific literature."

### WILL INSURANCE COVER PHYSICAL THERAPY?

Physical therapy is a benefit covered by both Medicare and other insurance plans, but coverage depends on the patient's diagnosis. The amount of therapy that's approved for patients after a medical issue, including a blood clot, may vary depending on the type of insurance. Dr. Hillegass notes that insurance companies usually limit the number of PT visits for reimbursement; some may cover three appointments while others may cover six or more visits. Dr. Hillegass notes that some patients may see the value in PT and decide to pay out-of-pocket for additional sessions so they can continue to reap the benefits of PT and stay mobile.

PT by video conference (or "tele-rehab") may also be a covered option for patients who have had blood clots. "If the patient doesn't have a lot of comorbidities [or other health issues], they'll be a great candidate for tele-rehab," says Dr. Hillegass. "However, if the patient has diabetes, high blood pressure, or other conditions, they may not want to do tele-rehab first since there may be other issues that need to be addressed."

Patients who have had a blood clot or have risk factors for blood clots can review available coverage options for PT through their insurance carriers and talk with their healthcare providers about finding cardiopulmonary PTs with experience in blood clot prevention and management. ■





career has focused on writing, communications, and educational outreach. Most recently, she served as the Program Development Director for Jett Foundation, where she worked closely with individuals and families impacted by neuromuscular

disorders. Shannon holds a degree in Journalism and Mass Communications from Saint Michael's College. In her downtime, she enjoys the outdoors and strives to be at the beach as much as possible during the summer. ■



## COVID-19 Vaccination: The Only Way to Control the Pandemic



Jawed Fareed, PhD

### PERSPECTIVES FROM DR. JAWED FAREED, CO-CHAIR OF RESEARCH AND SCIENCE, NATF BOARD OF DIRECTORS

COVID-19 has been detected in more than 206 million people, causing more than 4.3 million deaths worldwide.

Currently, there are some 16 clinically used vaccines, which have been used to control COVID-19 infections, and over 100 vaccines are in various phases of development. In the fight against COVID-19, these vaccines are our most effective weapon. In an incredibly short period of time, effective vaccines were developed and then delivered to millions of people throughout the world. It is uplifting to see researchers, clinicians, pharmaceutical sectors, institutions, and governments across the globe come together with a common goal of eradicating this pandemic someday soon. In the meantime, global vaccination is the key to managing the pandemic.

NATF has issued a position statement emphasizing the importance of vaccination and its safety:benefit ratio; this statement is regularly updated to reflect vaccine developments (such as FDA approval). Despite isolated reports about blood clot complications, the benefit of vaccines greatly outweighs any risk.

*It bears repeating: vaccination provides the only option to control this pandemic.*

NATF strongly recommends that all eligible individuals get vaccinated against COVID-19, including:

- People who have had a blood clot in the past
- People with genetic clotting disorders (such as factor V Leiden) or who have a family history of blood clots
- People who take anticoagulation (sometimes called blood thinners)
- People who take antiplatelet medications (aspirin, clopidogrel, ticagrelor)
- People who have bleeding disorders such as hemophilias

As flu season approaches, NATF, along with the Centers for Disease Control and Prevention (CDC), recommends receiving both the flu vaccine and the COVID-19 vaccine (if not already received). These vaccines can be safely given at the same time to fight both illnesses.

Vaccination is the key to protecting our individual health and limiting the spread of COVID-19 in our communities. It's also the best tool we have to prevent blood clots and other vascular complications associated with COVID-19, such as pulmonary embolism (PE), deep vein thrombosis (DVT), and stroke, as well as the chronic symptoms, called "COVID long-haulers syndrome," which can persist indefinitely and be debilitating. The full statement is available on our [website](#). ■

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