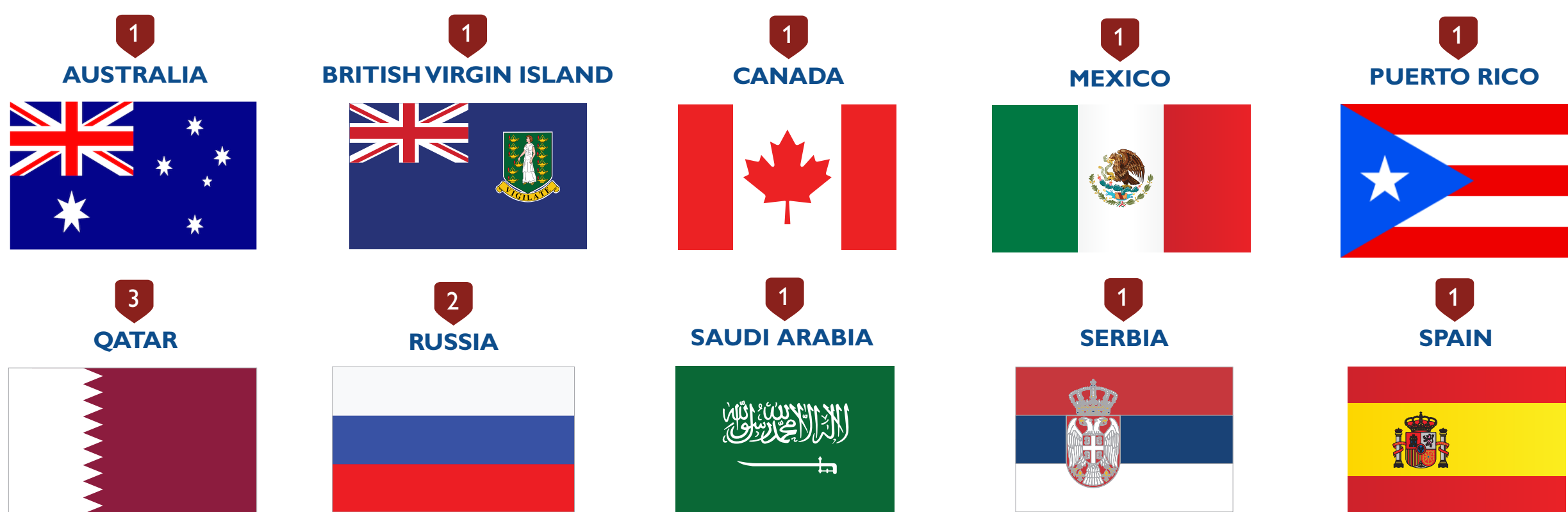
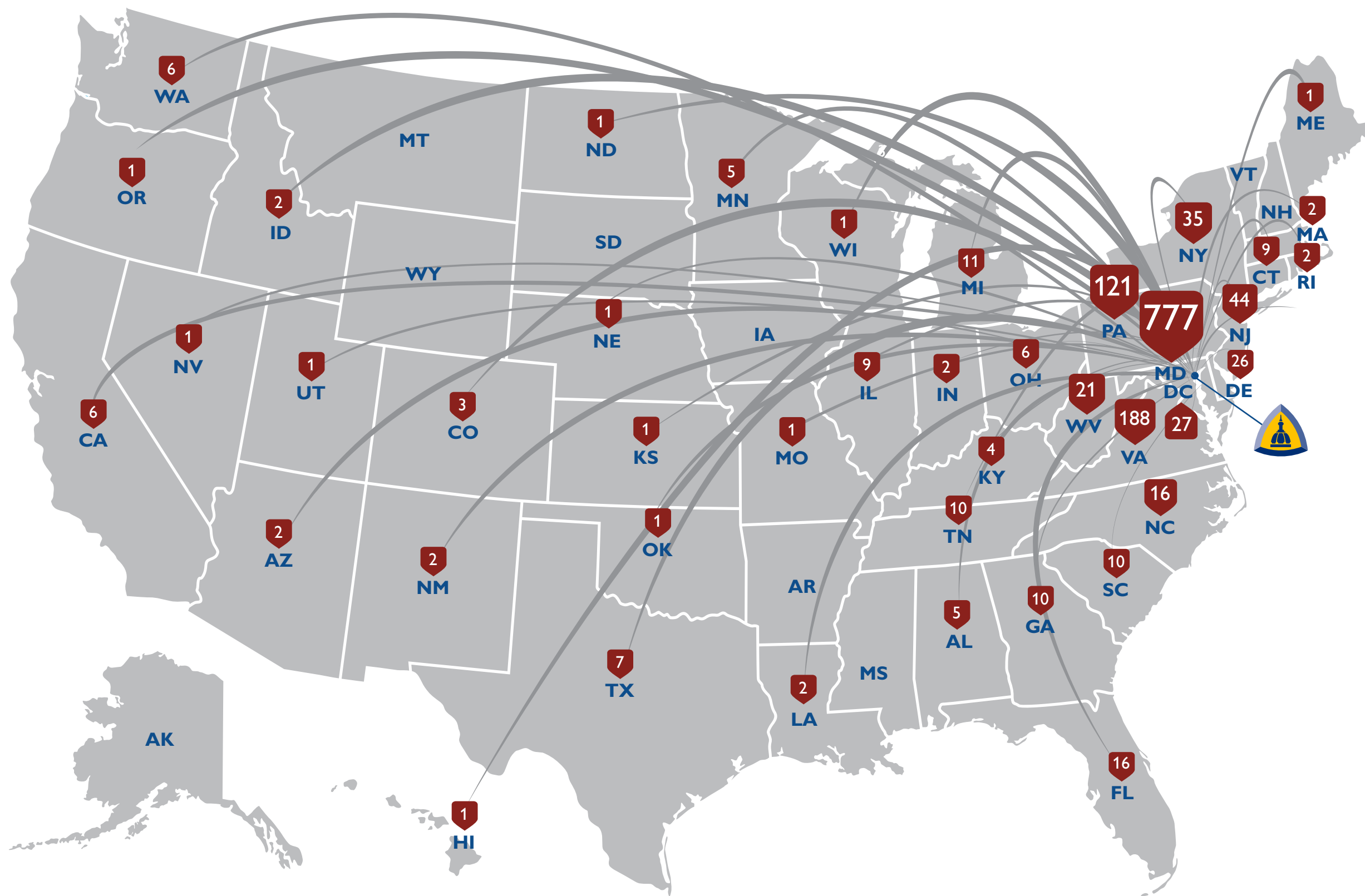




Thoracic Outlet Syndrome HOW FAR WOULD YOU GO?

Patients Have Traveled Near and Far to Johns Hopkins

*The data provided here are from 2013–2018



What is thoracic outlet syndrome?

Thoracic outlet syndrome (TOS) is a rare condition that may affect the nerves, blood vessels or both. It can be caused by repetitive motion, weightlifting, injury or internal factors, such as growth of a tumor, cervical rib or weight gain. Treatment and symptoms vary depending on the type of TOS.

Johns Hopkins is one of the few hospitals that specializes in diagnosing and treating TOS.

Three Types of TOS

Neurogenic

Neurogenic TOS occurs when the nerves leading from the neck to the arm are compressed; more than 90 percent of TOS cases are neurogenic. **It is more common in females between the ages of 20 and 40.**

Symptoms:

- Pain or weakness in the shoulder and arm
- Tingling or discomfort in the fingers
- Headache
- Cold intolerance

Venous

Venous TOS occurs when a vein is compressed, leading to upper-extremity blood clots. **It is more common in males between the ages of 20 and 30.**

Symptoms:

- Swelling of the arm, hands or fingers
- Blueness of the hand and arm
- Painful tingling in the hand and arm
- Veins of arm and chest appear more visible

Arterial

Arterial TOS occurs when an artery is compressed. **It is common in both sexes equally between the ages of 20 and 30.**

Symptoms:

- Cold and pale hand
- Pain in the hands and arm, especially during overhead motions of the arm
- Blockage of an artery in the hand or arm
- Aneurysm of the subclavian artery

Who is at risk for TOS?



Patients with a history of trauma or injury to any structures in or around the thoracic outlet



High-level athletes who compete in swimming, baseball, weightlifting, rowing or any other sport involving the muscles around the neck and shoulders

Patients who have occupations requiring chronic repetitive motion