COMPRESSION SOLUTIONS

Device reduces chance of death caused by clots after surgery

What if two Boeing 747 jetliners crashed every day for a year, taking the lives of every passenger aboard? It's a nightmare scenario that would be a disaster of unparalleled proportions.

Well, it turns out there is a medical condition that claims the lives of up to 300,000 Americans annually – the equivalent to two 747s crashing every single day for a year. And it rarely receives a headline.

The condition is known as deep vein thrombosis (DVT), which develops when blood clots form deep in veins, usually in the legs, often after surgery when blood is naturally clotting. When a blood clot dislodges and travels to the lung, it can form an often-fatal pulmonary embolism.

"By the numbers, it is the third-leading cause of death in the U.S., behind heart and cancer," said Mark Farrow, a Tulsa businessman who developed innovative technology to prevent DVT. "It usually gets lumped in with stroke because it's a blood clot and stroke is technically a blood clot. But this clot doesn't go to the brain. It goes to the heart and lungs and suffocates you."

Farrow is founder and CEO of a company called Compression Solutions Inc. that manufactures the Triple Play Pro and Triple Play VT devices for use by recovering surgical patients across the country. The devices also provide intermittent compression and cold therapy to prevent the development of blood clots in the lower leg.

Doctors use the Triple Play Pro in the surgical facility and then prescribe the Triple Play VT to patients returning home after surgery, when the risk for DVT is the highest.

"Total joint replacement patients have a high risk of clots," Farrow said. "I think the statistics are that 75 percent of DVTs occur between the first 48 hours and five days after surgery. Think about that; after two days, most people are home already."

Farrow recently provided me a tour of Compression Solutions' 20,000-square-foot headquarters just east of downtown Tulsa. Nearly 40 people were at work in the newly remodeled building, testing, packing and shipping devices to hospitals, medical clinics and patients recovering from surgery.

A veteran of durable medical equipment sales, Farrow began his career as a medical device entrepreneur after a doctor asked him if he could provide pneumatic compression equipment for a patient to use at home. At the time, equipment was big, bulky and limited to hospital use.

So Farrow researched the market and started a company called JPS Medical in 1999. In 2001, he purchased Orthopedic Resources, which evolved into Compression Solutions in 2012.

The combination of the Triple Play VT device, cold therapy and blood thinners has shown to reduce risk of deep vein thrombosis for recovering surgical patients by up to 75 percent if it is used as prescribed.

"We have about a 92 percent compliance with 65 hours of use," Farrow said. "However, that's not enough. We want it to be 165 hours. Physicians need to say, 'You need to use it and here's what can happen if you don't.'"

The company recently signed deals with two large purchasing organizations that adds potential markets by giving it access to about 4,500 hospitals nationwide.

Compression Solutions also has expanded into the sports arena with the development of what Farrow calls the Power Play device for joint relief and muscle recovery. The Power Play provides cold and compression therapy for physical therapy clinics, athletic trainers and athletes.

OCAST provides grant

The company is working on a next-generation mobile compression device. In cooperation with the University of Tulsa, it received a grant from the Oklahoma Center for the Advancement of Science and Technology (OCAST) to advance its development.

"That is money well spent," Farrow said. "To me, those kinds of grants do nothing but add jobs and opportunity to Oklahoma. Our whole goal in life is to provide a product that is life saving and reduce health care costs."

See the story in the 3-8-16 Oklahoman

Watch the video

Go to the Compression Solutions website