Using proton beam therapy on the heart

VIDEO	AUDIO
	When Roger Thomsen had his first episode several years ago, the 69-year-old retired repairman felt lightheaded. He checked his pulse. His heart rate was around 200 beats per minute. A typical pulse is 60 to 100.
Roger Thomsen **Patient**	"So I told the wife, I said, 'I think we need to go to the doctor.'"
	Roger soon learned he has a heart condition called ventricular tachycardia, also called V-tach or VT.
Konstantinos Siontis, M.D. **Cardiovascular Medicine** **Mayo Clinic**	"Ventricular tachycardia is an abnormal rapid rhythm arising from the bottom chambers of the heart that can cause significant symptoms to patients."
	It can even be fatal. Essentially a short circuit caused by scar tissue on the heart, a common treatment for V-tach is a catheter ablation. Doctors enter the heart through blood vessels using a catheter to create tiny scars with heat energy and block the irregular signals. Roger had several of these complex ablations.
Roger	"The symptoms came back. I was in the hospital a couple two or three times after that."
	So a couple of years ago, Roger enrolled in a clinical trial at Mayo Clinic. He would be one of the first of a handful of patients with V-tach to have a precise form of radiation typically used in cancer treatments, called proton beam therapy, used on his heart.
Roger	"I got nothing to lose. And the way it was, it wasn't working good."
Kenneth Merrell, M.D. **Radiation Oncology** **Mayo Clinic**	"Proton beam is a unique type of radiation that's actually a charged particle. It's able to deliver the energy of radiation at a specific depth or target in tissue without any exit dose beyond."

Dr. Siontis	"With catheter ablation, there are certain areas within the heart that can be difficult to access."
	And unlike a catheter ablation, proton beam therapy is completely noninvasive.
Dr. Siontis	"So the patient does not require anesthesia. They can walk into the treatment area and walk out the same day within about 30 minutes to an hour of completing the treatment."
	It's nearly a year since Roger has had an abnormally rapid heart rhythm.
Roger	"It made it so it was working."
	Which is the type of result the research team at Mayo says could bring new hope for some patients with V-tach.
Dr. Siontis	"I think this was an encouraging first step."
	While more study is needed, researchers are excited for the future.
Dr. Merrell	"Most likely, this will be another tool in the tool belt for us to use in patients."
	For the Mayo Clinic News Network, I'm Jason Howland.