

Broadcast-Radiation gets personal for patients with skin cancer

Anchor Lead-in: As OSF HealthCare prepares to open a nearly 200-thousand square foot Cancer Institute in Peoria, nearby biomedical engineers are using 3D printing technology to make sure radiation for the most common form of cancer – skin cancer – is as effective as it can be.

VO or Radio Wrap

Inside Jump Education Simulation & Education Center on the OSF Saint Francis Medical Center campus, biomedical engineer Reid Jockisch (pronounced JO-kish) regularly uses 3D printing to make patient-specific silicone boluses so radiation is evenly and efficiently distributed to cancerous skin lesions.

SOT-Reid Jockisch

"It'll literally just stick to the skin because it's silicone and they're soft and stretchy. You can see it's pretty malleable and would be comfortable to wear and it would just like sit right on the eye socket, on the nose, really in the ear in and around the ear, very comfortably." (:16)

TAG: Engineers like Jockisch use software that converts CT and MRI scans to create molds which are used to print the patient-specific boluses – a process all done behind-the-scenes to be ready when the skin cancer patient is ready to begin treatment.

OPTIONAL TAGS

Skin cancer is the number one cancer in the U.S. and one in five people are expected to develop it at some point in their lifetime.

Commercial boluses currently available are flat and allow for air gaps that aren't as effective at properly dispersing radiation and can require patients to undergo more treatments than with the personally-designed device.