

A photograph showing a woman lying on a specialized 3D mammography machine. A female technician is standing to the left, adjusting a control on the machine. The machine has a large, curved gantry with a detector and a monitor displaying a scan. The setting is a clinical room with wooden cabinets in the background.

Photo submitted by Grande Ronde Hospital

The 3D mammography room at Grande Ronde Hospital in La Grande uses powerful imaging technology to help diagnose disease and improve patients' lives.

IMAGING

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seconds and moments later a radiologist can give a diagnosis. Shortening the wait time can be life saving — and a relief to family and friends who may be anxiously awaiting results.

MRI and ultrasound tests do not use radiation, and X-rays and CT scans today use doses that are a fraction of what they once were, Juniper said. The Oregon Health Authority in December 2019 repealed the requirement for testicle and ovarian shielding through lead aprons when performing X-rays. And Juniper said the hospital's CT scanner uses radiation levels well below required guidelines.

"Our CT scanner has a dose modulation software and it calibrates and regulates the exposure during the CT scan based on the thickness of the body," Juniper said. "The dose modulation lowers the dose of the radiation as low as it can and still create an image that is diagnostic for the radiologist."

Juniper also said the hospital almost three years ago invested in a software program called Radimetrics, which measures every metric of exposure for a patient and tracks that information for future imaging at the hospital.

Grande Ronde Hospital also has made improvements in its mammogram technology. The hospital now has 3D imaging and biopsy technology to help in

the fight against breast cancer. Juniper said this new standard of imaging has allowed radiologists to find lesions and other potentially cancerous growths that would have been invisible using 2D imaging.

The technology is "remarkable," he said.

If a potential problem is detected, additional imaging is required, which inevitably causes stress and fear in a patient regardless of whether there turns out to be an actual cause for concern. With the limited 2D imaging, the majority of these callbacks were due to imprecise images. Because the images captured by the new mammogram technology can help doctors more accurately distinguish between normal and potentially cancerous issues in breast tissue, the unnecessary callbacks — and the unnecessary stress — have fallen dramatically. According to Juniper, a hospital that does everything right with 2D imaging will call back for additional testing 20% of the time. With Grande Ronde's imaging technology, that percentage has fallen 60-70%.

The 3D imaging also is available during CT scans and some MRI scans.

When imaging technology was first available at GRH in 1992, the hospital could handle around 40-50 patients each month. Juniper said that now the hospital can serve around 250 patients a month.

For patients who are waiting to find out if something is wrong, this means a quicker path to treatment or relief.