

OCTOBER 19, 2020 | YALE NEW HAVEN HOSPITAL RADIOLOGY AND BIOMEDICAL IMAGING

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## Weight Bearing CT Scanner

Yale New Haven Hospital is the first Connecticut facility to install a weight-bearing CT scanner, the CareStream Conebeam Extremity Scanner. Unlike a traditional CT Scanner, which requires patients to lie on a bed, patients are imaged by a weight-bearing scanner while standing or sitting to better see and understand how the injured bones and soft tissue appear in a natural position. In addition, patients who are unable to raise their arm over their head have the opportunity to sit in a chair and place the affected extremity in the machine.

The scanner allows us to see how fractured bones are oriented under a normal load with high-resolution CT and three-dimensional reconstructions. Not only does the scanner scan ultra-thin sections, the software allows for improved imaging of patients with metal from orthopedic hardware and joint prostheses, at a lower dose.

This data is combined with state-of-the-art reconstruction capabilities, resulting in image resolution that exceeds what is typically achievable on the traditional diagnostic scanners. The metal artifact reduction (MAR) is used to improve the visibility of the patient's anatomy when there is metal hardware present, as the streak artifact this causes can be detrimental to image quality.



The scanner is located at Smilow Cancer Hospital, 35 Park St., New Haven. For appointments, call 833-772-0003.

### Diagnostic Radiology Discontinues Use of Lead Aprons for General X-ray Exams

New research into radiation exposure is prompting Yale New Haven Health System to discontinue its longstanding policy of using lead aprons to protect reproductive organs during certain exams.

The practice of draping a lead apron over a patient's torso and pelvis to shield reproductive organs during imaging exams began in the 1950s. However, research conducted over the past decade on changes in imaging technology, combined with a better understanding of radiation's effects, prompted radiology professionals to reassess the practice, according to Jay Pahade, MD, radiology medical director, Quality and Safety, Yale New Haven Health.



"Medical imaging technology has made significant advances over the years, and uses much less radiation," he said. "There is no evidence to suggest that routine X-rays taken today in a radiology department harm the reproductive organs."

In fact, gonadal shielding might increase radiation to the patient, said Adel Mustafa, PhD, chief medical physicist, Yale New Haven Hospital.

"Data show that the radiation dose may be higher when a lead shield is used, as it can increase the radiation emitted by the X-ray machine," he said. "Also, if the shield is not properly placed, the technologist might have to repeat the X-ray."



Jay Pahade, MD, radiology medical director, and Adel Mustafa, PhD, chief of diagnostic radiology physics, in the radiology department at Yale New Haven Hospital.

This policy change does not apply to lead shields used for other body parts, such as the breasts or the thyroid, in select radiology procedures. Gonadal shielding will continue to be used when needed during fluoroscopic exams.

"The current studies on this topic strictly focus on gonadal shielding during general X-ray exams," said David Facchini, quality and safety manager, Radiology and Biomedical Imaging. "This will likely expand in the coming years as the practice change gets more traction."

The gonadal shielding policy change has been implemented at YNH and Bridgeport Hospital and will be implemented at other YNHHS sites over the next few months.

The American College of Radiology, American Association of Physicists in Medicine and National Council on Radiation Protection and Measurements support the change. A handful of other large U.S. health networks have already made the transition, with more expected across the globe over the next few years, Dr. Pahade said.

## Clinical Decision Support

As of January 1, 2020, ordering physicians must consult Appropriate Use Criteria when ordering outpatient advanced imaging. This includes CT, MRI, PET, and Nuclear Medicine for Medicare patients. All imaging providers across the country are required to adopt this change.

To help clinicians comply with this legislation, YNHHS has integrated a clinical decision support tool into Epic, and provide access to a web-based tool, Care Select for non-Epic users.

When placing these high-tech imaging orders in the EMR, the system will send those exams to National Decision Support Company, our third-party vendor, for review and scoring based on Appropriate Use Criteria (AUC). When the score of the originally placed high-tech imaging exam falls below a certain threshold, the system will find and suggest alternate exams that may be more appropriate for the patient.

For non-Epic users, once registered, physicians enter a patient's information into Care Select, and obtain a unique decision support number to be used as verification AUC was referenced. This number needs to be included when making a referral, either electronically or on our YNH radiology requisitions.

A listing of frequently asked questions is available from your physician liaison, or visit [www.cms.gov](http://www.cms.gov) for more information.

## Nuclear Medicine Studies

All Nuclear Medicine Requisitions should be faxed to 203-867-5672. To schedule, call 203-688-1011, option 7. Once entered into the system, a representative will call the patient to schedule.

## YNHH Laboratory Medicine Draw Stations Introduces Waitwhile Wait Management

In order to more effectively adhere to the mandatory social distancing guidelines, lab medicine has introduced Waitwhile, a wait management service. Waitwhile recognizes the need for social distancing and occupancy restrictions, while creating a safe option in real time

for patients to self-schedule and track draw station occupancy.

Patients join a virtual waitlist and are notified when it is their time to return for a safe laboratory experience.

This service became effective at our Branford draw station on October 1, and is scheduled to begin this week at Shoreline Medical Center in Guilford, and other sites to follow in the coming days.

Laboratory Customer Service can be reached at 203-688-2444 with any questions, or Errol Anderson, physician liaison, 203-688-1302.

## Greater New Haven Radiology and Blood Draw Ambulatory Sites

All imaging, including X-ray must now be scheduled. Patients are screened before their imaging appointment as well as at time of scheduling. For COVID-19 or suspected COVID-19 patients, they must call our Radiology Hot Line at 475-246-9660 for an appointment at our hot site.

**Long Wharf Medical Building, 150 Sargent Drive**  
Breast Imaging, Breast Ultrasound, Body Ultrasound, X-ray, Bone Density

**YNHH Diagnostic Radiology and Blood Draw, 556 Main St., East Haven**

*Remains closed with the exception of positive COVID-19 patients*

X-ray, Ultrasound, Blood Draw

For CT, MRI and Nuclear Medicine, patients are scheduled on the main campus in New Haven in designated areas.

**YNHH Blood Draw  
84 North Main St., Branford**

**YNHH Shoreline Medical Center,  
111 Goose Lane, Guilford**

Breast Imaging, Ultrasound, CT, MRI, X-ray, Bone Density, Blood Draw

**YNHH Diagnostic Radiology and  
Blood Draw**

**2560 Dixwell Ave., Hamden**

X-ray, Ultrasound, CT, Bone Density, Blood Draw

**YNHH Diagnostic Radiology and Blood Draw**  
Yale Physicians Building  
800 Howard Ave., New Haven  
X-ray, Ultrasound, Blood Draw

**YNHH Outpatient Diagnostic Testing Center,  
Blood Draw**  
330 Orchard St., New Haven  
1475 Whalley Ave., New Haven

**YNHH Diagnostic Radiology and Blood Draw**  
6 Devine St., North Haven  
Breast Imaging, Ultrasound, X-ray, MRI, Bone  
Density, Blood Draw  
2 Devine St., North Haven  
Blood Draw

**YNHH Old Saybrook Medical Center**  
633 Middlesex Turnpike, Old Saybrook  
X-Ray, Ultrasound

**YNHH Blood Draw**  
236 Boston Post Road, Orange

**YNHH Blood Draw**  
665 North Colony Road, Wallingford

**YNHH Diagnostic Radiology and Blood Draw,**  
500 Elm St., West Haven  
Ultrasound; X-ray, Blood Draw

**YNHCH Pediatric Specialty Center**  
One Long Wharf, New Haven  
Ultrasound, X-ray, Blood Draw



### **YNHH Radiology and Pediatric Specialty Physician Liaison Team contact information**

#### **New Radiologist Contact List Now Available**

*If you would like a printed copy of our new Radiologist Contact List, please let us know. If you are in need of our Radiology requisitions, we can also deliver to your office upon request.*

*We continue to enjoy communicating with you through a variety of ways; phone calls, email and some limited visits. We welcome your questions or suggestions for future newsletters.*

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*Radiology and Pediatric Specialty  
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Thank you to Michelle Thomas, CT Tech, for her contribution to the information on the Conebeam Extremity Scanner.