Radiology at Notre Dame de Secours University Hospital: Excellence Through Expertise & Innovation

The Radiology Department at Notre Dame de Secours University Hospital (NDSUH) - Jbeil is recognized as a leading center for advanced diagnostic imaging and minimally invasive image-guided therapy. The department is staffed by seven radiologists with subspecialized training in musculoskeletal imaging, neurology, pediatrics, senology, cardiac imaging, interventional radiology, and nuclear medicine. This multidisciplinary expertise ensures high-level diagnostic accuracy and comprehensive clinical support across all medical specialties.

The radiology department provides a complete range of imaging modalities, including conventional radiography, fluoroscopy, ultrasound, Doppler studies, musculoskeletal ultrasound, CT, coro-CT, arthro-CT, MRI, arthro-MRI, and PET imaging. The integration of these technologies enables precise morphological and functional assessment, facilitating early detection, and optimized therapeutic planning.

Nuclear Medicine: Functional Imaging at the Molecular Level

The nuclear medicine unit of the Radiology Department unit plays a central role in evaluating pathophysiological processes at the cellular and molecular levels. PET imaging and advanced nuclear medicine studies allow for early disease detection, accurate staging, and treatment monitoring, particularly in oncology and neurodegenerative disorders such as Alzheimer's disease.

By combining functional data with high-resolution anatomical imaging, clinicians benefit from a comprehensive diagnostic approach essential for personalized patient management.

A Comprehensive Range of Diagnostic and Therapeutic Radiology Services for Musculoskeletal Imaging

The radiology department's musculoskeletal specialists perform targeted infiltrations under ultrasound or CT guidance for the management of joint, tendon, and soft-tissue disorders. These minimally invasive procedures provide precise drug delivery with higher efficacy and reduced post-procedural discomfort.

Interventional Radiology: Image-Guided Precision Therapy

Interventional Radiology (IR) represents one of the most advanced and rapidly developing pillars of the radiology department. By using real-time imaging guidance IR provides highly targeted diagnostic and therapeutic procedures through small percutaneous access routes, significantly reducing morbidity, pain, and recovery time compared to open surgery.

Image-Guided Diagnostic & Therapeutic Techniques Biopsies

Ultrasound- and CT-guided biopsies allow highly accurate sampling of lesions involving the liver, lung, breast, kidney, bone, lymph nodes, and other organs—critical for oncologic, infectious, and inflammatory diagnosis.

Percutaneous Drainage

Minimally invasive drainage of abscesses, infected collections, cysts, and postoperative complications provides rapid clinical improvement and frequently avoids the need for surgical intervention.

Advanced Vascular & Oncologic Interventions

The radiology department interventional radiology team performs a wide array of vascular procedures, including:

-Stent placement and vascular prosthesis implantation

-Percutaneous transluminal angioplasty for arterial stenosis

-Embolization for hemostasis, trauma control, and tumor devascularization

These procedures rely on high-precision catheterization techniques under fluoroscopic and digital subtraction angiography (DSA) guidance.

Chemoembolization (TACE) & Radioembolization (TARE):

Targeted Intra-Arterial Oncology

The radiology department offers two state-of-the-art intra-arterial treatments for liver tumors:

Transarterial Chemoembolization (TACE)

TACE combines localized delivery of chemotherapeutic agents with selective arterial embolization. This technique concentrates the therapeutic effect within the tumor while minimizing systemic toxicity, making it a primary or adjunctive treatment for hepatocellular carcinoma (HCC) and selected metastatic lesions.

Transarterial Radioembolization (TARE – Y-90)

TARE involves selective catheterization of hepatic arteries followed by injection of yttrium-90–loaded microspheres. These particles deliver internal radiation directly to tumor tissue with sub-millimeter precision. TARE is indicated for primary and metastatic liver malignancies, particularly in patients requiring a highly targeted, organ-sparing approach.

Together, TACE and TARE significantly expand treatment options for patients with liver tumors and are integral components of modern multidisciplinary cancer care.

Prostate Artery Embolization (PAE): A Minimally Invasive Option for BPH

Prostate Artery Embolization is an innovative, evidence-based treatment for **Benign Prostatic Hyperplasia (BPH).** Using microcatheters, the prostatic arteries are selectively embolized, reducing prostatic blood flow and inducing gradual volumetric shrinkage.

Clinical Benefits of PAE

-Performed under local anesthesia

-No surgical incision

-Low complication rate

-Preservation of sexual and urinary function

-Effective and durable improvement of lower urinary tract symptoms

PAE is particularly valuable for patients who are poor candidates for surgery or prefer a minimally invasive therapeutic option.

Pain-Management Procedures

Interventional radiology also contributes significantly to pain management, offering:

- Image-guided nerve blocks and joint injections

-Vertebroplasty for stabilization of osteoporotic or traumatic vertebral compression fractures

These procedures provide rapid symptom relief and improved functional outcomes.

Senology Unit: High-Resolution Breast Imaging & Early Detection

The Radiology Department's senology unit integrates advanced technologies for comprehensive breast evaluation. The latest-generation digital mammography system provides superior image resolution with optimized radiation dose. This enhances the detection of microcalcifications, architectural distortions, and early-stage malignancies.

The radiology department Breast Imaging Capabilities:

-Screening and diagnostic **digital mammography**

-Breast ultrasound, particularly valuable in dense breast tissue

-**Tomosynthesis (3D mammography)**, when available, for enhanced lesion characterization
-**Stereotactic breast biopsies** for precise, minimally invasive sampling of mammographic abnormalities
Specialized breast radiologists ensure accurate interpretation and seamless coordination with oncologists and breast surgeons, supporting optimal patient care from screening through diagnosis and follow-up.

Commitment to Scientific Excellence &Patient-Centered Care
Through continued investment in advanced imaging technologies, specialized training, and evidence-based radiologic practice, the Radiology Department at Notre Dame de Secours University Hospital remains at the forefront of medical innovation.
The Radiology Department's mission is to provide the community of Jbeil and its surrounding region with diagnostic and therapeutic services that meet the highest scientific and clinical standards.

Alarming Number of People Now Vape!

More than 100 million people, including at least 15 million children, use e-cigarettes, fueling a new wave of nicotine addiction, the World Health Organization (WHO) is warning.
Children are, on average, nine times more likely than adults to vape, it says, based on available global figures.
The WHO's Dr Etienne Krug said e-cigarettes were fueling a "new wave" of nicotine addiction. "They are marketed as harm reduction but, in reality, are hooking kids on nicotine earlier and risk undermining decades of progress."
WHO Director General, Dr Tedros, accused the tobacco industry of "aggressively targeting" young people.
"Millions of people are stopping, or not taking up, tobacco use thanks to tobacco control efforts by countries around the world," he said.
"In response to this strong progress, the tobacco industry is fighting back with new nicotine products, aggressively targeting young people. Governments must act faster and stronger in implementing proven tobacco-control policies," he added.
The vaping figures are an estimate since some countries - 109 in all, and many in African and South-East Asia - do not gather data.
According to the report, as of February this year, at least 86 million e-cigarette users were adults, mostly in high-income countries.
And at least 15 million teenagers aged between 13 and 15 already vape, based on surveys from 123 countries.
While many nations have made efforts to introduce e-cigarettes regulations to tackle child vaping in recent years, by the end of 2024, 62 countries still had no policy in place, and 74 countries had no minimum age at which e-cigarettes may be purchased, says the WHO.

Meanwhile, tobacco use has been decreasing - from an estimated 1.38 billion users in 2000 to 1.2 billion in 2024.
Prevalence of tobacco use among women dropped the most - from 11% in 2010 to 6.6% in 2024.
Among men, the decrease was from 41.4% in 2010 to 32.5% in 2024.
But one in five adults globally still uses tobacco.
Smoking is linked to many diseases, including cancer.
Experts say vaping is far less harmful than cigarettes, and can help you quit smoking. It is not recommended for non-smokers.
E-cigarettes do not burn tobacco and do not produce tar or carbon monoxide, two of the most damaging elements in tobacco smoke. They contain nicotine, which can be addictive.