# ABOUT PACIFIC MEDICAL CENTERS AND INLAND IMAGING

At Pacific Medical Centers and Inland Imaging, our advanced technology, subspecialized radiology expertise, and deep commitment to your health means you'll get answers you can trust and care you can count on.

# **SCHEDULING:**

206.326.6500 www.PacMed.org/Schedule

## **LOCATIONS:**

Visit www.PacMed.org for a list of our locations.





# **MUSCULOSKELETAL IMAGING** Imaging Your Bones, Joints and Muscles



# **MUSCULOSKELETAL IMAGING**

The likelihood of injury or pain increases with repetitive activity, athletic competition or exercise. With an injury such as a visible dislocation or a broken bone, it's likely to be obvious that you need medical attention.

Other injuries, however, may be less clear and will require more investigation to evaluate and confirm a diagnosis. In both cases, medical imaging can be a powerful tool for your health care provider to determine treatment options.

The musculoskeletal system, which includes bones, joints and muscles, can be imaged with a variety of different radiological techniques. While the modalities provide similar information for each particular patient condition, there is often one imaging modality that will provide the most useful information.

We offer MRI, CT, X-ray and ultrasound in the imaging of the musculoskeletal system, and are dedicated to providing the highest-quality imaging for musculoskeletal disease. Our board-certified musculoskeletal radiologists frequently consult directly with other clinical specialists to provide the most accurate diagnosis possible. They are also available to help your physician decide which modality is best for imaging your particular concern.

### **Magnetic Resonance Imaging**

**Magnetic Resonance Imaging (MRI)** is the imaging method of choice in the diagnosis and treatment of disorders of the muscle, joints and bone without radiation.

Injuries to the soft tissue, joints and bones can be difficult to diagnose, even with a thorough physical examination by an expert. Our two MRI short-bore magnets provide physicians with the highly detailed images they need to accurately pinpoint and treat even the smallest soft-tissue injuries, including injuries to the muscle, ligament and meniscal tears, and problems with the cartilage and bone.

In many cases, MRI is a good, cost-effective alternative to surgery in the examination of injuries like rotator cuff tendonitis and bone bruises. With MRI, patients with these conditions may avoid surgery and get the care they need faster.

MRI's ability to detect subtle bone marrow edema and problems with soft tissues also makes it the preferred imaging method in the diagnosis of many bone and soft tissue tumors, infection and avascular necrosis, a disease in which bone tissue dies due to a lack of blood supply.



 $\mathsf{MRI}$  is the imaging modality of choice in the diagnosis of joint and bone disorders.

### **Computed Tomography**

**Computed Tomography (CT)** is also very useful in the diagnosis and follow-up of many musculoskeletal disorders, particularly those pertaining to bone, such as fractures that cannot be seen on X-ray, healing fractures and bone tumors.

The sophisticated X-ray technology works by taking multiple pictures from different angles of inside the body. A computer analyzes and integrates the data to create a series of cross-sectional pictures, called slices. These slices are combined to produce two- and threedimensional images. The tool allows physicians to accurately evaluate the location, shape, size, density and texture of internal structures.

With our technologically advanced CT scanners, Pacific Medical Imaging is able to deliver high-resolution medical images while reducing patients' radiation exposure using true low-radiation doses.

### **X-ray Imaging**

**X-ray imaging** is perhaps the most familiar type of musculoskeletal imaging. It is most commonly used for evaluating possible fractures, but it is also used for evaluation of arthritis or bone tumors.

### Ultrasound

**Ultrasound** is useful in evaluating soft-tissue abnormalities, such as masses, tendon or muscle injuries, and the hips of infants suspected of having congenital hip dysplasia. It is most commonly used in the evaluation of rotator cuff injuries. Ultrasound images are obtained using a wand which is guided across the skin surface over the affected area.



### **Treatments**

There are also a variety of needle procedures performed by radiologists to diagnose and treat musculoskeletal disorders. These include therapeutic as well as diagnostic joint aspirations and injections, bone and soft-tissue biopsies, facet and epidural steroid injections and discograms.

### **Ask Your Doctor**

Diagnostic imaging plays a very important role in providing you and your physician with the information you will need to make key decisions about your health. We are continually investing in the latest musculoskeletal imaging technology to provide patients with access to the highest quality services. We encourage you to talk to your health care provider about which modality may be best for you.