



Last Reviewed: March 2024 – FINAL	
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**Background:** Discussion with representatives from the various orthopedic groups as well as primary care providers within Legacy Health partners has revealed a few opportunities for streamlining musculoskeletal imaging and reducing our overall imaging costs.

Data shows that High-Cost Imaging is a significant driver of our patients’ total cost of care. As a clinically integrated network, LHP strives to lower healthcare cost without compromising patient care. Additionally, as out-of-pocket patient responsibilities rise, our patients carry a notable portion of this burden as well. By reducing unnecessary advanced imaging tests (MRIs of shoulders, knees, and hips) LHP can achieve these goals.

**It is not necessary for Primary Care providers to order joint MRIs prior to referral to Orthopedics**

There is a common misconception that orthopedic surgeons will not see a patient without an MRI done prior to an initial evaluation. This is not true, and the orthopedic surgeons in our network agree that they often prefer to decide if an MRI is necessary as part of a surgical evaluation. While advanced imaging may help guide the decision regarding the need for orthopedic evaluation, it is not required. Often, the decision to operate or not can be made without advanced imaging.

**X-rays:**

- **Traumatic joint pain:** For plain films done in the primary care, ED, or urgent care setting to evaluate for a fracture or other acute bony issue, 3-view films are appropriate.
- **Non-traumatic joint evaluation:** For patients who will likely be seen by an orthopedist, a full evaluation for the common joints includes the views listed below.
- Lower extremity films should be weight bearing whenever possible.

NOTE- not all EMRs are set up to order all of these views easily, but they can often be added into comment fields and saved as favorites.

Joint	Initial Image	Comments
Knee	Should include 4 standard views: <ul style="list-style-type: none"> <li>• Weight bearing AP</li> <li>• Salt Lake view</li> <li>• Non-weight bearing lateral</li> <li>• Sunrise view</li> </ul>	Allows evaluation of the entire knee joint for osteoarthritis, avascular necrosis, osteochondritis dissecans, loose bodies and other visible bony pathology. NOTE - a normal plain film does not necessarily rule out avascular necrosis.
Shoulder	Should include 4 standard views: <ul style="list-style-type: none"> <li>• Shoulder AP with hemithorax</li> <li>• Grashey view (true AP)</li> <li>• Axillary view</li> <li>• Outlet view</li> </ul>	Allows evaluation of the entire shoulder joint for osteoarthritis, avascular necrosis, rotator cuff pathology, acromioclavicular joint pathology, dislocation and bony deficits about the shoulder, and other visible bony pathology
Hip	Should include 2 standard views: <ul style="list-style-type: none"> <li>• Weight Bearing AP pelvis</li> <li>• Frog-Leg Lateral (non-weight bearing) of the hip of interest</li> </ul>	Allows for evaluation of the entire hip joint for osteoarthritis, osteonecrosis, slipped capital femoral epiphysis, acetabular and femoral neck dysplasia in children and adults, and other visible bony pathology

**Contact:** If you have questions or comments about this guide or are interested in the development of future collaboration guides, please contact LHP medical director Albert Chaffin, M.D., [achaffin@lhs.org](mailto:achaffin@lhs.org).

**Disclaimer:** No guideline can anticipate all the unique circumstances of patient care, and as such, there are times when good clinical judgement will result in and will require deviation from this guideline. In those settings, the reason for such deviation from this guideline should be documented in the medical record.