

# ROUTINE MRI SCAN OF THE KNEE

A procedure at risk of being overused, as indicated by the: Italian Society of Medical Radiology

In the event of knee pain, related either to trauma (fall, sprain, blow...) or without an apparent cause, it is often recommended that a patient has a magnetic resonance imaging scan (MRI) to determine the course of action, even prior to an orthopaedic clinical examination. When performed routinely, this should be considered an overused procedure. Most illnesses producing knee pain may in fact be diagnosed through a clinical examination; that is, by understanding what problems the patient has had through a physical examination, supplemented with a normal x-ray if necessary.

If there are no clinical signs of alarm, having an MRI of the knee, either during the first 4-6 weeks of trauma related acute pain or during the first months of pain when there is no apparent cause, does not change the choice of treatment. It may instead lead to the discovery of incidental findings that wouldn't have caused trouble, leading to further exams and possibly even unnecessary surgery. Furthermore, it carries with it an unnecessary cost for the patient and for the community.

## LET'S UNDERSTAND WHY

Knee pain is very widespread in the adult population. At least one out of five people suffer from it and the frequency increases

with age. Causes may vary but, normally, the type of problem (inflammation, arthrosis, trauma or other) can be identified through understanding the clinical history and a physical examination, making it possible to determine what possible investigations are to be carried out. Typically, pain responds to the recommended physical and medical treatment.

➤ The most common cause of chronic knee pain is arthrosis, an illness that affects the joints by damaging the cartilage and



impacting the underlying bones and adjacent structures. It is a cause of pain, joint stiffness (usually after periods of inactivity or rest) and difficulty moving the limbs. The pain is alleviated by rest and awakened by use, but in the most advanced phases it can appear even at rest and at night.

➤ Ordering an MRI is tied to the widespread belief that this exam is always recommended, because it makes it possible to "see the whole knee". In reality, however, the observed alterations do not always correspond to the cause of pain and rarely do so in the case of arthrosis.

➤ Performing a routine MRI may help identify common injuries, including those without clinical significance. For example, a meniscus injury is common after 50 years of age and often identified through an MRI. If the injury is not a cause of the pain and doesn't cause any problems, such identification can lead to unnecessary surgery, increasing the risks of worsening joint degeneration.

## WHEN MAGNETIC RESONANCE IMAGING MAY BE RECOMMENDED

An MRI of the knee may be considered useful only when it is aimed at directing the choice – once the diagnosis has been made – between effective treatment alternatives that are considered reasonable based on clinical data.

To learn more: Guide "Malattia e dolori reumatici", Altroconsumo, December 2012 (in Italian) [www.altroconsumo.it/guidepratiche](http://www.altroconsumo.it/guidepratiche).  
Project "Doing more does not mean doing better – Choosing Wisely Italy"  
[www.slowmedicine.it](http://www.slowmedicine.it)  
[www.choosingwiselyitaly.org](http://www.choosingwiselyitaly.org)

## KNEE PAIN: ADVICE FROM ALTROCONSUMO



➤ It is good to reduce excess weight if one is overweight. Any additional load worsens the state of health of the knee joints, aggravating any problems and pain. That said, it is still important to maintain a rich and well-balanced diet, without giving up any nutrients.

➤ Especially after 50 years of age, it is recommended to exercise with caution and, if necessary, reduce and avoid all sports involving intense stress on the knee, like jogging, tennis, volleyball and basketball. Biking, however, is considered useful as it maintains muscle tone without overloading the joints as, indeed, does swimming.

➤ Avoid a sedentary lifestyle and exercise regularly, even simply by going for a brisk walk for a half an hour every day (10,000 steps per day), keep in good general health and help also keep the muscles and knee joints in good shape.

➤ Suitable exercises can help keep the joints mobile.