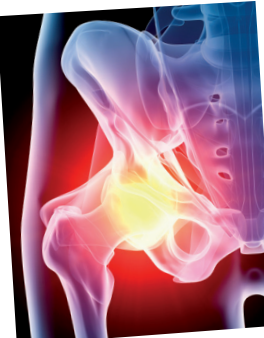


# Are Metal-on-Metal hip implants safe?



Stiff joints and aching bones – once, there was little to do but accept problems like these as part of ageing. But now, modern interventions like hip implants can help give people their mobility back.

**Metal-on-Metal joint implants, one specific category of implants, may solve many dysfunctions related to the hip. But, do they come with risks?**

The European Commission's Scientific Committee on Emerging and Newly Identified Health Risks (SCENIHR) responds to this question in its Opinion on "The safety of Metal-on-Metal (MoM) joint replacements with a particular focus on hip implants", the main points of which are summarised in this fact sheet.

## → WHAT ARE METAL-ON-METAL HIP REPLACEMENTS?

Hip replacements can be total or partial, replacing all or only one of the two components of the hip joint – the ball and socket – that should glide together smoothly to make movement easy.

In a total hip replacement, the femoral head (the top of the thigh bone) and the damaged acetabulum (the socket) are removed and replaced with metal, plastic or ceramic components.

In hip resurfacing arthroplasty, the femoral head is not removed. The damaged area is trimmed and fitted with a smooth cap. Damaged bone and cartilage within the socket, however, are removed and replaced, like in total hip replacements.

In Metal-on-Metal hip implants, the replacement components in both the ball and the socket are made of metal. This type of implant can be used for both total and partial hip replacement surgery.

## → WHY USE METAL?

Metal parts are long-lasting and are often used in younger patients to save them having to undergo revision operations later to replace less durable plastic parts. Metal implant components tend to be larger as well, making them more durable and less likely to dislocate.

## → WHAT ARE THE CONCERNS ABOUT METAL-ON-METAL HIP REPLACEMENTS?

When two components, as in an implant, continually rub against each other, there may be some resulting debris. In Metal-on-Metal hip implants, tiny metal particles may wear off due to friction and build up over time around the implant and even end up in blood and tissues.

Most patients who have Metal-on-Metal implants have no adverse effects, but some patients experience symptoms around the hip, like swelling. A few others report problems located elsewhere than the hip area that may possibly be related to the release of metallic substances.

## → WHAT ARE SCENIHR'S CONCLUSIONS ABOUT THE SAFETY OF METAL-ON-METAL HIP REPLACEMENTS?

The SCENIHR concludes that large-head (large diameter) Metal-on-Metal hip implants, in particular, pose the highest risk of provoking undesirable reactions.

Because of the potential health risk posed by Metal-on-Metal hip implants, the decision to use them should be made on an individual

basis, weighing the pros and cons and considering relevant factors such as age, gender, body size, physical fitness and lifestyle.

All types of Metal-on-Metal implants should be avoided by high-risk patients including females of childbearing age, small-boned females and patients who are allergic to the relevant metals.

If Metal-on-Metal implants are judged to best fit a patient's needs, the surgery should only be performed by a very experienced surgeon to minimize the risks.

For post-operative care, the SCENIHR endorses the strategy outlined in the European Consensus Statement, which recommends that all patients with implants have regular radiographic and clinical check-ups. In particular, routine checks should be conducted for any metal ions from large-head Metal-on-Metal total hip replacements, and patients who have had hip resurfacing arthroplasty should have regular check-ups at least during the first post-operative years.

This fact sheet is based on the Opinion of the independent Scientific Committee on Emerging and Newly Identified Health Risks (SCENIHR): "The safety of Metal-on-Metal joint replacements with a particular focus on hip implants". **September, 2014**

This opinion is available at:  
[http://ec.europa.eu/health/scientific\\_committees/emerging/opinions/index\\_en.htm](http://ec.europa.eu/health/scientific_committees/emerging/opinions/index_en.htm)