



AAHKS

Patient
Education
Committee

Metal Sensitivity and Joint Replacement



Introduction

Welcome to the AAHKS patient education video series!

This video will cover **Metal Allergy / Hypersensitivity:**

- What is it?
- Signs & Symptoms
- Diagnosis
- Management



Implants Contain Metal



Cobalt

Aluminum

Nickel

Niobium

Molybdenum

Chromium

Titanium

Zirconium

Vanadium

Tantalum



Metal Allergy

- **10-15%** of the Population
- Delayed-Type Reaction
 - First Exposure
 - Second Reaction



Common Allergic Metals

Nickel (#1)

Cobalt

Chromium



Signs & Symptoms

- Skin Reaction
 - Rash
 - Itching
- Associated with
 - Jewelry
 - Clothing
 - Eyeglasses
 - Occupation



Testing for Metal Allergy

- Skin Patch Testing
 - Positive Test **DOES NOT MEAN** Problems with Joint Replacement
 - Unreliable Results in Orthopaedics
- Blood Tests are available
 - **No Accepted and Reliable Test**
- More Research is Needed



Metal Ions & Joint Implants

- Poorly Functioning Implants release **Metal Ions**

- “Metal on Metal” hips

- Worn Plastic Liner



- Metal ions **MAY EXCITE** the immune system → Problems

- Metal Ion Levels can be **ELEVATED** in patients with well-functioning implants



Allergic Symptoms

- Swelling
- Stiffness
- Pain at rest
- Skin Rash
- Itching

*****INFECTION MUST BE
RULED OUT*****



Before Surgery

- **Severe Rash & Itching** to Metal Jewelry
 - Specialized implants are available



After Surgery

- **Rule Out Infection**
- Rash or Itching
 - **Topical/Oral Steroids**
- Continued **SEVERE** Rash & Pain
 - Exhausted non-operative treatments
 - Revision Joint Replacement Surgery with special implants
 - **Unpredictable Outcomes**



Summary

- **Allergic reaction** to metal implants is **VERY RARE**
- Routine testing is **NOT** recommended
- Diagnosis can be **Difficult**
- Inform your surgeon if you have **SEVERE** metal sensitivity
- Research is ongoing





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Infection and Your Joint Replacement

Allergic or Sensitive to Metal

Computer Assisted Surgery

What are Hip and Knee Replacements
Made of?

Revision Knee Replacement

Revision Hip Replacement

