

SurveyMonkey MA Survey questions

Metal hypersensitivity survey

1. Welcome to Survey on hypersensitivity/allergy to orthopaedic metal implants and hardware.

Thank you for participating in our survey. Your feedback is important.

Orthopaedic surgeons frequently see patients who state sensitivity to jewelry. This research is about the orthopaedic surgeon's viewpoint on clinical concepts in metal hypersensitivity. We would like to find out about the current standards of practice and possible areas of discrepancy that relate to patient reported metal hypersensitivity. If you agree to take part, you will be asked questions about your opinions and experience with metal hypersensitivity. The survey will take about 20 minutes to complete. You can skip any question that you do not wish to answer or end the survey at any time.

The survey is anonymous, and no one will be able to link your answers back to you. Please do not include your name or other information that could be used to identify you in the survey responses.

Thank you for your participation in this study.

2. Demographics

2.1 Are you male or female?

Female

Male

2.2 What is your age?

less than 30

30–39

40–49

50–59

60 or older

2.3 In what country do you currently reside?

United States

Canada

Mexico

Other (please specify)

3. Other countries

3.1 On which continent do you practice?

- Africa
- Asia
- Australia
- Other (please specify)
- Europe
- North America
- South America

3.2 In what country do you practice?

3.3 In what town/village/city do you practice?

4. United States

4.1 US Region

- New England (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont)
- Middle Atlantic (New Jersey, New York, and Pennsylvania)
- East North Central (Illinois, Indiana, Michigan, Ohio, and Wisconsin)
- West North Central (Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota and South Dakota)
- South Atlantic (Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, Washington D.C., and West Virginia)
- East South Central (Alabama, Kentucky, Mississippi, and Tennessee)
- West South Central (Arkansas, Louisiana, Oklahoma, and Texas)
- Mountain (Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming)
- Pacific (Alaska, California, Hawaii, Oregon, and Washington)

Other (please specify)-Outside the US(Territory)

4.2 In what state or U.S. territory do you currently work?

5. Demographics Orthopaedic Practice

5.1 About how long have you been practicing orthopaedics?

Years

5.2 Type of Orthopaedic practice? Check all that apply

- Foot/Ankle
- General
- Hand/Upper Extremity
- Oncology/Tumor
- Pediatric
- Shoulder/Elbow
- Spine
- Sports Medicine
- Total Joint
- Trauma
- Other (please specify)

5.3 Arthroplasty procedures: Do you perform? How many per year? (Only complete for the procedures that you perform)

How many per year?

Ankle/Foot	<input type="text"/>
Elbow: Radial Head	<input type="text"/>
Elbow: Total Elbow Arthroplasty/Hemiarthroplasty	<input type="text"/>
Hip (Total/Hemiarthroplasty)	<input type="text"/>
Knee (Total/Partial)	<input type="text"/>
Shoulder (Total/Reverse/Hemiarthroplasty)	<input type="text"/>
Spine –Disc	<input type="text"/>
Wrist/Hand	<input type="text"/>

5.4 How many internal fixation or fusion (with hardware) procedures do you perform each year? Choose one.

- | | | |
|-----------------------------|-----------------------------|--|
| <input type="radio"/> None | <input type="radio"/> 31–40 | <input type="radio"/> 71–80 |
| <input type="radio"/> 1–10 | <input type="radio"/> 41–50 | <input type="radio"/> 81–90 |
| <input type="radio"/> 11–20 | <input type="radio"/> 51–60 | <input type="radio"/> 91–100 |
| <input type="radio"/> 21–30 | <input type="radio"/> 61–70 | <input type="radio"/> Greater than 100 |

6. Experience with metal hypersensitivity

6.1 Have you had a patient develop a metal allergy to an implant you used?

7. Do you believe that patients can develop a hypersensitivity to metal orthopaedic implants?

7.1 Do you believe that metal allergies occur to orthopedic implants?

8. Experience with metal hypersensitivity

8.1 How many cases of metal hypersensitivity/reaction have you seen? Choose one.

- 0 31-40 71-80
 1-10 41-50 81-90
 11-20 51-60 91-100
 21-30 61-70 Greater than 100

8.2 What metals have you seen reactions to and what percentage?

	Percentage
Aluminum	<input type="text"/>
Chromium	<input type="text"/>
Cobalt	<input type="text"/>
Iron	<input type="text"/>
Molybdenum	<input type="text"/>
Nickel	<input type="text"/>
Titanium	<input type="text"/>
Vanadium	<input type="text"/>
Zirconium	<input type="text"/>
Other	<input type="text"/>

Other (please specify)

8.3 What implants have shown reactions: how many reactions have you seen? (only complete for the procedures that you perform)

How many reactions have you seen?

Ankle/Foot Arthroplasties	<input type="text"/>
Elbow: Radial Head	<input type="text"/>
Elbow: Total Elbow Arthroplasty/Hemiarthroplasty	<input type="text"/>
Hip (Total/Hemiarthroplasty)	<input type="text"/>
Knee (Total/Partial)	<input type="text"/>
Shoulder (Total/Reverse/Hemiarthroplasty)	
Spine –Discs/Cages	<input type="text"/>
Spine - Rods/Hardware	<input type="text"/>
Wrist/Hand Arthroplasties	<input type="text"/>
Plates/Screws/pins	<input type="text"/>
Intramedullary Rods	<input type="text"/>
Metallic suture anchors/interference screw	<input type="text"/>
Other (please specify)	<input type="text"/>

8.4 How many allergic reactions to metal implants have you seen?

How Many?

How many allergic reactions to metal implants have you seen in the last year?	<input type="text"/>
How many allergic reactions to metal implants have you seen in the last 5 year?	<input type="text"/>
How many allergic reactions to metal implants have you seen in the last 10 year?	<input type="text"/>

9. Experience with metal hypersensitivity: **symptoms**

9.1 What were the signs and symptoms? What percentage of cases do you see this symptom?

	percentage of cases
Pain	<input type="text"/>
Swelling	<input type="text"/>
Sterile Effusion	<input type="text"/>
Loss of Motion	<input type="text"/>
Skin rash/cutaneous manifestation	<input type="text"/>
Osteolysis around implant	<input type="text"/>
Other	<input type="text"/>

Other (please specify)

9.2 When did the symptoms occur?

What percentage of patients?

Less than 1 year from implantation.	<input type="text"/>
1-2 years from implantation.	<input type="text"/>
2-4 years from implantation.	<input type="text"/>
5 or more years from implantation.	<input type="text"/>
Other	<input type="text"/>

Other (please specify)

10. Diagnosis

10.1 How did you or how would you make the diagnosis of metal hypersensitivity to an orthopaedic implant? Check all that apply

- Patient signs and symptoms:
- Skin tests – Metal Disc test
- Skin test – Patch test
- Blood test - serum metal ion concentrations
- Blood tests – Lymphocyte Transformation Test (LTT)
- Blood tests - Leukocyte Migration Inhibition Test (LMIT)
- Allergist/Dermatologist Consult
- Other (please specify)

10.2 Rank your preferred method of making the diagnosis:
From most preferred [1] to least preferred [8]

⋮	<input type="text"/>	Patient signs and symptoms:	<input type="checkbox"/> N/A
⋮	<input type="text"/>	Skin test – Metal Disc test	<input type="checkbox"/> N/A
⋮	<input type="text"/>	Skin test – Patch test	<input type="checkbox"/> N/A
⋮	<input type="text"/>	Blood test - serum metal ion concentrations	<input type="checkbox"/> N/A
⋮	<input type="text"/>	Blood test – Lymphocyte Transformation Test (LTT)	<input type="checkbox"/> N/A
⋮	<input type="text"/>	Blood test - Leukocyte Migration Inhibition Test (LMIT)	<input type="checkbox"/> N/A
⋮	<input type="text"/>	Allergist/Dermatologist Consult	<input type="checkbox"/> N/A
⋮	<input type="text"/>	Other _____	<input type="checkbox"/> N/A

11. Treatment

11.1 How did you or would you treat the allergic response to the orthopaedic implant?

	percentage of times treated
Observe/monitor	<input type="text"/>
NSAIDs	<input type="text"/>
Steroids	<input type="text"/>
Revision/Remove implant	<input type="text"/>
Refer to another Orthopaedic Surgeon	<input type="text"/>
Other _____	<input type="text"/>

Other (please specify)

11.2 How did you or would you treat the allergic response to the orthopaedic implant? Rank most likely treatment (1) to least likely treatment choice (6)

<input type="text"/>	Observe/monitor	<input type="checkbox"/> N/A
<input type="text"/>	NSAIDs	<input type="checkbox"/> N/A
<input type="text"/>	Steroids	<input type="checkbox"/> N/A
<input type="text"/>	Revision/Remove implant	<input type="checkbox"/> N/A
<input type="text"/>	Refer to another Orthopaedic Surgeon	<input type="checkbox"/> N/A
<input type="text"/>	Other (as stated in prior question)	<input type="checkbox"/> N/A

12. Questioning during history taking about metal hypersensitivity/allergy

12.1 Do you routinely ask patients if they are allergic to metals or jewelry?

12.2 What percentage of arthroplasty patients do you inquire about metal allergy pre-operatively?

12.3 Is there a specific question in your patient questionnaire form for metal allergy?

13. Management of positive history metal sensitivity

13.1 What do you do with a mild positive answer to the questionnaire (e.g. mild difficulty to jewelry)? Check all that apply

- | | |
|--|---|
| <input type="checkbox"/> Take no action | <input type="checkbox"/> Blood testing - Serum Ions |
| <input type="checkbox"/> Perform allergy testing - In office | <input type="checkbox"/> Blood testing - Lymphocyte Transformation Test (LTT) |
| <input type="checkbox"/> Perform allergy testing - Outside Testing | <input type="checkbox"/> Blood testing - Leukocyte Migration Inhibition Test (LMIT) |
| <input type="checkbox"/> Skin Contact Testing - Patch | <input type="checkbox"/> Allergist/Dermatologist consultation? |
| <input type="checkbox"/> Skin Contact Testing - Disc | <input type="checkbox"/> Other_____ |
| <input type="checkbox"/> Other (please specify) | |

13.2 What do you do with a markedly positive answer to the questionnaire (e.g. marked reaction to jewelry)? Check all that apply

- | | |
|--|---|
| <input type="checkbox"/> Take no action | <input type="checkbox"/> Blood testing - Serum Ions |
| <input type="checkbox"/> Perform allergy testing - In office | <input type="checkbox"/> Blood testing - Lymphocyte Transformation Test (LTT) |
| <input type="checkbox"/> Perform allergy testing - Outside Testing | <input type="checkbox"/> Blood testing - Leukocyte Migration Inhibition Test (LMIT) |
| <input type="checkbox"/> Skin Contact Testing - Patch | <input type="checkbox"/> Allergist/Dermatologist consultation? |
| <input type="checkbox"/> Skin Contact Testing - Disc | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Other (please specify) | |

14. Testing

14.1 What metals do you test for? Check all that apply.

- | | | |
|---|-------------------------------------|------------------------------------|
| <input type="checkbox"/> Aluminum | <input type="checkbox"/> Iron | <input type="checkbox"/> Titanium |
| <input type="checkbox"/> Chromium | <input type="checkbox"/> Molybdenum | <input type="checkbox"/> Vanadium |
| <input type="checkbox"/> Cobalt | <input type="checkbox"/> Nickel | <input type="checkbox"/> Zirconium |
| | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> Other (please specify) | | |

14.2 Do you test for cement component allergy?

15. How does allergy testing influence your treatment plan?

15.1 How do the results of testing influence your treatment? Mild reaction

- Does not alter treatment choice.
- Alters implant choice to non-reacting metal component.
- Choose not to perform the arthroplasty/procedure
- Obtain second opinion or refer to another physician
- Other (please specify)

15.2 How do the results of testing influence your treatment? Moderate reaction

- Does not alter treatment choice.
- Alters implant choice to non-reacting metal component.
- Choose not to perform the arthroplasty/procedure
- Obtain second opinion or refer to another physician
- Other (please specify)

15.3 How do the results of testing influence your treatment? Severe reaction

- Does not alter treatment choice.
- Alters implant choice to non-reacting metal component.
- Choose not to perform the arthroplasty/procedure
- Obtain second opinion or refer to another physician
- Other (please specify)

15.4 Please provide any additional information on how you manage metal hypersensitivity.