# Article information:

In-Vitro Cell-Induced Corrosion by Macrophages on Cobalt-Chromium-Molybdenum Alloy - The Journal of Arthroplasty
[https://www.arthroplastyjournal.org/article/S0883-5403(22)00080-8/fulltext](https://www.arthroplastyjournal.org/article/S0883-5403%2822%2900080-8/fulltext)

# Article summary:

1. This study aimed to investigate the effects of macrophages on the corrosion of cobalt-chromium-molybdenum (CoCrMo) alloy in vitro.

2. The results showed that macrophages could induce corrosion on CoCrMo alloy surfaces, and that electrocautery damage did not increase this process.

3. The clinical significance of these findings should be further investigated to determine if this could explain a small number of poor total knee arthroplasty reported outcomes.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article is generally reliable and trustworthy, as it provides a detailed description of the research conducted and its results. The authors have provided sufficient evidence for their claims, including inductively coupled plasma spectrometry data and scanning electron microscopy images. Furthermore, the authors have discussed potential implications for clinical practice, which adds to the trustworthiness of the article.

However, there are some potential biases in the article that should be noted. Firstly, the study was conducted using murine macrophages rather than human cells, which may limit its applicability to humans. Secondly, only one type of metal alloy was tested in this study; thus, it is unclear whether similar results would be obtained with other alloys or metals used in orthopedic implants. Additionally, while the authors discuss possible implications for clinical practice based on their findings, they do not provide any recommendations or suggestions for how clinicians should act upon these findings. Finally, while the authors note that their findings may explain a small number of poor total knee arthroplasty reported outcomes, they do not explore any other potential causes or contributing factors to these outcomes.

# Topics for further research:

* Total knee arthroplasty outcomes
* Metal alloy biocompatibility
* Murine macrophage response
* Clinical implications of metal alloy biocompatibility
* Other causes of poor total knee arthroplasty outcomes
* Biocompatibility of other metals and alloys used in orthopedic implants

# Report location:

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