A close up of MSKTC logo



# Quick Review of Model System Research

### Investigation into Possible Association of Oxandrolone and Heterotopic Ossification Following Burn Injury

### What is the study about?

[Oxandrolone](https://www.merriam-webster.com/medical/oxandrolone) can counteract the [catabolic](https://www.merriam-webster.com/dictionary/catabolic) effects of burn injury. However, recent animal studies have shown an association between oxandrolone and the development of heterotopic ossification (HO) postburn. This study examines oxandrolone and HO development by exploring historical clinical data.

### What did the study find?

Individuals with burn injury receiving oxandrolone had a higher occurrence of elbow HO than individuals who did not receive oxandrolone. However, when controlling for specific clinical factors that put a person with burn injury at risk for developing heterotopic ossification, there were no significant difference in rates of elbow HO between individuals who did and did not receive oxandrolone.

### Who participated in the study?

### Participants were selected from the Massachusetts General Hospital Research Patient Data registry. Participants had to be 18 years or older with severe burns admitted between 2000 and 2014.

### How was the study conducted?

Participants were assigned a risk score for the development of HO using a previously validated scoring system. Medical records were examined for patient demographics and clinical data. Data from a study that looked at the effects of oxandrolone in mice were also examined.

### [How can people use the results?](file:///C:\\Users\\ccai\\AppData\\Local\\Microsoft\\Windows\\Temporary%20Internet%20Files\\Content.Outlook\\4WHR71C4\\Bogner_CER-1403-13476_DFRR_Professional%20and%20Public%20Abstract_SME%20Review_102918%20ccai.docx" \l "Note" \o "Describe who could use the results and how. Could be patient, doctor, administration, centers. Should make sense given findings and study design. Do not overreach.)

These findings can be used to inform clinicians, individuals with burn injury and their families on the associations of oxandrolone and HO following burn injury.

### Reference

Thorpe, C. R., Ozgurel, S. U., Simko, L. C., Goldstein, R., Grant, G. G., Pagani, C., . . . Ryan, C. M. (2019). Investigation into Possible Association of Oxandrolone and Heterotopic Ossification Following Burn Injury. Journal of Burn Care & Research, 40(4), 398-405. doi:10.1093/jbcr/irz063

### Disclaimer

The contents of this quick review were developed under a grant from the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR grant number 90DP0082). NIDILRR is a Center within the Administration for Community Living (ACL), Department of Health and Human Services (HHS). The contents of this quick review do not necessarily represent the policy of NIDILRR, ACL, HHS, and you should not assume endorsement by the Federal Government.