Effect of 7.0 Tesla MRI on Upper Eyelid Implants

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Metrics

Abstract

In Brief

To ensure the MRI compatibility of various eyelid implants in high-field MRI, 3 eyelid weights made of pure gold (99.99%), pure platinum (99.95%), and a platinum (97%)/iridium (3%) alloy were examined in vitro. Temperature changes, position changes, and imaging artifacts of the different implants were determined in a small-bore 7.0 Tesla MRI system. The 7.0 Tesla MRI system demonstrated that none of the eyelid implants carried a risk of heating or dislocation; therefore, these implants are MRI compatible up to a magnetic field strength of 7.0 Tesla.

Eyelid weights made of pure gold (99.99%), pure platinum (99.95%), or a platinum (97%)/iridium (3%) alloy are MR compatible up to a magnetic field strength of 7.0 Tesla.