

Can HRT protect women from joint replacement deterioration? Maybe.

By ACSH Staff — January 24, 2014



A medium-sized, retrospective (observational) study of several

thousand women post knee- or hip-joint replacement indicated that those who were taking hormone replacement therapy (HRT) had a lower risk of needing revision of their implant over a period of 18 months to 6 years post-surgery (average follow-up of 3 years). And there appeared to be a dose-response relationship. The study was published in the [Annals of Rheumatic Disease](#) [1].

The multi-national group of authors came from the UK and Spain, among other nations. They collected data from women over 40 years of age who had total hip or total knee replacement (THR or TKR) for osteoarthritis between 1986 and 2006. They compared outcomes between these groups: 2,700 HRT users vs. (otherwise-matched) 8,100 non-HRT users. Those women who were on HRT for 6 months after surgery had a 38 percent lower incidence of requiring THR or TKR revision; those women who had more than 12 months of HRT had a 52 percent lower risk.

National data for England and Wales indicate that more than 2% of procedures typically have to be repeated within three years, primarily because of osteolysis (75% of cases).

Osteolysis occurs when particles from the implant seep into the surrounding tissue, prompting an inflammatory response which then destroys the bone around the implant.

And joint replacement surgery rates are set to rise substantially as the population ages and the prevalence of obesity rises, as the study [authors told Medical News Today](#). [2]

ACSH's Dr. Gilbert Ross added this perspective: While the link between brief treatment with HRT estrogen and a progestin and stabilizing implanted artificial joints seems tenuous from a biological hypothesis point of view, and these numbers are not as impressive as they might seem, given the observational nature of this study, it is a valid inspiration for a randomized, prospective, well-controlled trial. Certainly the potential risks of a year's worth of HRT are minuscule in the large majority of women, and if this is confirmed as a valid cause-and-effect, it might reduce the burden,

both economic and personal, of revision of TKRs and THRs among women.

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[1] <http://ard.bmj.com/content/early/2014/01/07/annrheumdis-2013-204043.abstract>

[2] <http://www.medicalnewstoday.com/releases/271490.php>