RISK FACTORS
ESTROGEN AND KIDNEY STONES

Risk of kidney stones is increased in postmenopausal women treated with estrogen therapy alone or estrogen plus progesterone therapy, according to the findings of a randomized trial.

Kidney stones are less common in women than men before 50 years of age, but the sex difference in incidence narrows in individuals aged >50 years, which had suggested a possible protective role of estrogen. "Since the process of kidney stone formation is influenced by a variety of lifestyle and other health-related factors, the true effect of estrogen therapy on the risk of kidney stone formation in postmenopausal women was difficult to infer from the observational studies previously performed," points out lead researcher Naim Maalouf of the University of Texas Southwestern Medical Center.

Maalouf *et al.* examined the incidence of kidney stone formation in participants of the Women's Health Initiative placebo-controlled, randomized trials of postmenopausal hormone replacement therapy. Risk factors for kidney stones were similar at baseline in the treatment and placebo groups, but estrogen therapy increased the risk of kidney stones, and the risk increase was similar for women treated with estrogen plus progesterone. The researchers now plan to identify the mechanisms by which estrogen increases the risk of kidney stone formation.

"Kidney stones occur in 5–7% of postmenopausal women; hence, the findings could be important to a significant proportion of these women. Estrogen therapy should be thought of as a risk factor for kidney stone formation in postmenopausal women, although making decisions to start or stop estrogen therapy should not be made on the basis of kidney stone risk alone, but while keeping in mind its other risks and benefits," concludes Maalouf.

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