

## Inadvertent Exposure of Pets and Children to Topical Estrogens

You are likely aware that a year ago the Food and Drug Administration (FDA) mandated a labeling change for topical androgen gels used predominantly by men following case reports of virilizing effects in exposed children.<sup>1</sup> Although rare, The North American Menopause Society (NAMS) wanted to call your attention to this possible danger. A few cases of transfer of topical estrogen preparations to pets and children have been reported.

NAMS was initially contacted by the Veterinary Information Network, a subscription Web-based resource for veterinarians, who compiled nearly twenty cases from around the nation of pets presenting with signs of estrogen excess (labial enlargement in females or gynecomastia in males) leading to, at times, lengthy, costly, and invasive investigations including surgeries, prior to determining that pets had been exposed to topical estrogen preparations used by their owners.<sup>2</sup> The signs of estrogen excess usually resolved when estrogen exposure to the pet was terminated. We have since identified one case report in the veterinary literature.<sup>3</sup>

We naturally then wondered about the possibility of secondary transfer to humans, especially small children by family members, care providers, teachers, etc. The pediatric literature includes at least one case report published a decade ago of three little boys presenting with gynecomastia after exposure to maternal compounded estrogen creams.<sup>4</sup> There are additional cases dating from the late 1960s of secondary estrogen exposure in children involving hair products, ointments, cosmetics, food contamination, over-the-counter products with lavender and tea oil components, and inhalation (children of diethylstilbestrol workers). You might already be familiar with a celebrated case report of gynecomastia in an older man whose wife liberally used a vaginal estrogen preparation.<sup>5</sup> NAMS is unaware of additional cases reports identifying inadvertent transfer of contemporary topical estrogen products. Transferability studies of FDA approved topical estrogens are described in the product packaging and a few published articles; as conducted, these studies suggest low potential for transfer. To our knowledge, no studies exist that evaluate transferability of compounded hormone creams.

In an effort to determine the extent of these findings, NAMS asks your help in compiling cases of secondary estrogen exposure in pets or in persons. We've established a dedicated email address at NAMS ([nams@menopause.org](mailto:nams@menopause.org)) for you to submit case reports. We also encourage you to report cases directly to the FDA (FDA MedWatch Adverse Event Reporting Form FDA 3500 for persons;<sup>6</sup> Form FDA 1932a for pets available online.<sup>7</sup>)

In the meanwhile, reemphasize safe practices and careful hygiene among your patients. Hands should be thoroughly washed after applying topical estrogens and before handling food products, animals, or small children. Allow estrogen products to dry thoroughly per package directions prior to contact with persons or pets. Consider covering arms or legs where estrogen products have been applied prior to holding pets or small children. Do not allow pets to lick skin areas where estrogen products have been applied. Dispose of estrogen products out of reach of children or pets.

Thank you for your participation. NAMS will keep you posted as this story evolves.

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