

Investigating Bioidentical Hormone Exposure

When a laboratory report shows highly elevated, supraphysiologic saliva hormone test results, the next step is to investigate and determine the source(s) of exposure to the bioidentical hormone(s).

Consider asking these questions to determine the source of the exposure:

- Were bioidentical hormones avoided the day before and the day of saliva collection, as recommended in the collection instructions?
- Was a topical product containing bioidentical hormones touched the day before or the day of saliva collection, leading to exposure?
- Are hormone creams applied while wearing gloves to prevent contamination of surfaces in the environment?
 - If so, are gloves disposed of cautiously, without touching the residue on the gloves or surfaces in the environment with the contaminated gloves?
 - If not, what surfaces could have been touched with contaminated hands after applying BHRT?
 - Was a hand towel, faucet, doorknob, drawer, light switch, lamp, pillow, bedding, or something else touched?
 - If the answer is yes, the environment is likely contaminated with bioidentical hormones, which can lead to unintentional exposure and direct contamination of the saliva sample. When product residue remains on the skin, fingers, face, or lips, it is more likely to contaminate the vial.
- Is someone else in the home knowingly using bioidentical hormones, such as testosterone, hydrocortisone cream, progesterone, or estrogens?
- Is the patient or someone in their household using personal care products, such as cosmetics, lip balm, lip stick, mascara, hair care, creams, lotions, moisturizers, serums, or anti-aging blends? Note that **personal care products may contain undisclosed bioidentical hormones**, leading to environmental contamination and personal exposure.
 - Were all personal care products avoided the day before and the day of saliva collection, as recommended in the collection instructions?
 - Is someone visiting the home and using personal care products?
 - Did someone in the home begin using a new personal care product?
- Are essential oil products used in the home?
- Were any over-the-counter medications, such as nasal sprays, lip balms, ear drops, eye drops, or creams used the day before or the day of saliva collection?
- Where was the saliva collected, and is that environment contaminated with bioidentical hormones?
- Did the exposure occur outside the home? At the gym or work?
- Could anyone else in the home, including pets or children, be exposed to bioidentical hormones?
 - If so, a non-invasive saliva hormone panel can be ordered for all human family members to screen for unintentional exposure to bioidentical hormones.

Repeat Saliva Hormone Testing

When a saliva hormone level is exceptionally elevated, consider more carefully avoiding exposure to all exogenous steroid hormones, and then repeat the test.

Suggestions to avoid unintentional exposure to bioidentical hormones before saliva hormone testing:

- **Three to five days before saliva collection:**
 - Avoid taking sublingual hormones under the tongue. Instead, sublingual hormones may be taken orally, in the same dose as usual, but swallowed with water instead of being dissolved under the tongue. To clarify, for at least three days before saliva collection, take the sublingual hormone as an oral medication (rather than sublingual), and then avoid taking the bioidentical hormones the day before and the day of collection.
- **Two days before saliva collection:**
 - Wipe down surfaces in the environment to remove bioidentical hormones.
 - Launder all bed linens and hand towels.
- **The day before and the day of saliva collection:**
 - Avoid exposure to all steroid hormones, including over-the-counter products (nasal sprays, eye drops, ear drops, and creams).
 - Discontinue the use of personal care products, including anti-aging products, lip balms, cosmetics, and sunscreens.
 - Avoid the use of essential oils.
 - Avoid exposure to other household members who use bioidentical hormones or personal care products.
 - Unless directed otherwise by the prescribing physician, avoid the use of all prescribed bioidentical steroid hormones, including progesterone, estradiol, testosterone, DHEA, etc.
 - For safety reasons, we advise healthcare providers to follow proper tapering protocols for discontinuing prednisone and other steroid medications if discontinuation is medically appropriate.
 - Birth control pills, thyroid hormones, and melatonin may be continued as prescribed and will not lead to skewed test results.

Once direct saliva sample contamination and unintentional exposures are eliminated, test results will accurately reflect the tissue concentrations from circulating free hormone levels.

If a saliva hormone level is elevated, but not at a supraphysiologic level, further assessment is indicated to rule in/out excessive endogenous production of the hormone. Consider testing the total hormone level in serum, since the total hormone level in the serum will also be elevated with excessive endogenous production. A normal or low serum level will confirm that a high saliva hormone level is likely caused by unintentional exposure to exogenous hormones or low blood protein production.

For more information, healthcare providers may consider [scheduling a consultation](#) with a physician on the Medical Support team.