



BEST PRACTICES FOR SPECIMEN COLLECTION

SALIVARY HORMONE TESTING

The following collection guidelines are specific to Doctor’s Data reference ranges and vary based on BHRT routes of delivery. Following these intervals assures your patients’ results correlate to the supplementation ranges provided.

Note: For providers interested in testing endogenous/baseline levels of hormones, your patient must avoid hormone use for at least 72 hours prior to collection. After 72 hours, supplementation ranges are no longer applied.

| Route of Delivery | Dosage Interval |
|--|---|
| Topical (including vaginal administration) | 12-24 hours prior to sample collection |
| Sublingual (dissolved under the tongue) | 24-36 hours, followed by two 8 oz. glasses of water |
| Oral | Continue day of collection |
| IM/SQ Injections | Mid-Cycle |
| Subcutaneous Pellets | Mid-Cycle |
| Transdermal Patch | Mid-Cycle |
| Cortisol | Discontinue 4-5 days prior to sample collection |

Topical (including vaginal administration): The ideal dosage interval is 12-24 hours before sample collection (the time between last hormone application and first morning sample collection should be 12-24 hours). DO NOT APPLY ANY TOPICAL HORMONES THROUGHOUT THE ENTIRE DAY OF COLLECTION, RESUMING USE AFTER THE 4TH SAMPLE HAS BEEN COLLECTED.

Note: For dosages typically applied at bed-time, refrain from use the evening prior to sample collection or use topical formulation earlier in the day if the period between application and sample collection will be less than 12 hours; i.e.: 6:00 PM application for a 7:00 AM wake-up/morning sample collection (giving a 13 hour dosage interval).

Sublingual (dissolved under the tongue): The interval between last hormone usage and first AM salivary sample collection should ideally be 24 to 36 hours. After the last dose of the hormone has dissolved in the mouth, it should be followed by two 8 oz glasses of water to clear the mouth of any residual hormone. The first saliva sample should then be collected 24 - 36 hours later. DO NOT USE ANY SUBLINGUAL HORMONES THROUGHOUT THE ENTIRE DAY OF COLLECTION, RESUMING USE AFTER THE 4TH SAMPLE HAS BEEN COLLECTED.

Note: Residual contamination is often observed in samples with dosage intervals under 24 hours.

Oral: It is recommended to continue PO supplementation as prescribed on the day of collection.

IM/SQ Injections: The recommended dosing interval for IM hormones is mid-cycle. For example, the ideal sample collection day for hormone(s) being injected every two weeks (14 days) is 7 days after injection.

Subcutaneous Pellets: The recommended dosing interval for subcutaneous pellets is mid cycle. For example, the ideal sample collection day for hormone level monitoring when pellets are replaced every 90 days, is approximately day 45.

Transdermal Patch: Though the hormone in a transdermal patch is formulated for continual release, a tapering of dose does occur. Therefore, the recommended dosage interval for transdermal patches is mid cycle. For example, if a patch is replaced weekly (every 7 days) ideal sample collection should occur approximately 3-4 days after application.

Cortisol/Glucocorticoid Supplementation: Oral cortisol peaks and returns to baseline within 1-3 hours; therefore it is difficult to measure the therapeutic levels of hydrocortisone/cortisol. It is typically recommended to evaluate endogenous production of cortisol and, as such, recommended to stop ALL cortisol supplementation (including inhalers and topical creams) 4-5 days prior to sample collection.

Melatonin Supplementation: Last dose should be at least 36 hours before first saliva sample collection. recommended to stop ALL cortisol supplementation (including inhalers and topical creams) 4-5 days prior to sample collection.

Health Disclaimer: All information given about health conditions, treatments, products and dosages are not intended to be a substitute for professional medical advice, diagnosis or treatment.



Collection Schedule

| Menopausal Status | When to Collect Sample |
|---|--|
| Premenopausal, regular cycles (28 days) | Days 19-23 Mid luteal phase |
| Premenopausal, regular cycles longer than 28 days | Count back 7-9 days from usual end of cycle, at a minimum of day 19 Luteal phase is almost always 14-16 days long |
| Perimenopausal, irregular cycles with ovulation pains | 7 days after ovulation |
| Perimenopausal, irregular cycles, no ovulation pains | Test after day 14, and before day 1 of next cycle |
| Premenopausal, irregular cycle shorter than 14 days | Days 7-9 |
| When there is no point of reference, e.g. 60 days | Collect samples; freeze; if no period within 2 days then mail the sample |
| Men and postmenopausal women | Anytime |

| Schedule | When to Collect Sample |
|--|--|
| Night shift workers | Collect first sample 30 mins after awakening regardless of time of day. Time of month should follow schedules above. Add note to requisition form noting shift worker. |
| Frequent travelers (especially across multiple time zones) | If possible, collect samples after 2 weeks at home on regular schedule. |

Cortisol levels have a natural diurnal rhythm that varies throughout the day. Cortisol levels should reach their peak approximately 30 minutes after waking and then gradually decline throughout the day. The AM30 cortisol level is the most important, as it gives us the most information about adrenal function.

Always Collect 4 Samples

We request that samples be collected at all four times during the day, regardless of what lab tests have been ordered.

When saliva kits are received by the lab, a fifth pooled tube of saliva is created by collecting a measured sample from each of the four submitted tubes. The fifth tube is mixed thoroughly to provide homogenization and becomes the source from which estrogen, progesterone, testosterone and DHEA are measured. Sex hormone levels fluctuate throughout the day. The pooling of these four samples enables the laboratory to provide a much better reflection of each patient's hormonal status. It is essentially an average of the four submitted samples and more accurately reflects physiologic hormone levels.

Sample Schedule for Follow-Up Testing

| | | |
|----------------|---|---|
| At 2-3 Months | Any new patient with supplementation related to E2, E3, PG, T, and DHEA | Comprehensive Plus, Comprehensive Short, or Basic Panel depending on what is being treated |
| Up to 6 Months | Any patient still reporting symptoms after initial supplementation plan for E2, E3, Pg, T, and DHEA | Comprehensive Plus, Comprehensive, Short, or Basic Panel depending on what is being treated |
| | Any patient on adrenal support supplementation | Comprehensive, Adrenal, or Cortisol Panel |
| At 12 Months | All patients | Comp. Plus, Comp., Short, or Basic depending on what is being treated |

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Filling out the Hormone Use Survey:

Note: Some pens can bleed through paper, obscuring information entered on the back page. Please use a ball point pen when filling out this document. Fill out all 3 sections. It is important that you make note of any hormone supplementation you are using in section 1. Make note of the last time you used that particular hormone in section 2, and how often you use the hormone in section 3.

| Conjugated Estrogens (i.e. Premarin) | Estradiol + Progestin (i.e. birth control pills, HRT) | Progestin only (i.e. minipill, Depo injection, IUD) | Estrone (E1) | Estradiol (E2) | Estriol (E3) | Progesterone (P4) | Testosterone (T) | DHEA | Corticosteroid (i.e. cortisol, hydrocortisone, prednisone) | Pregnenolone | Thyroid | Melatonin |
|---|--|--|--------------|----------------|--------------|-------------------|------------------|------|---|--------------|---------|-----------|
|---|--|--|--------------|----------------|--------------|-------------------|------------------|------|---|--------------|---------|-----------|

Conjugated Estrogens - This refers primarily to Premarin (conjugated equine estrogen). It is not referring to bioidentical estradiol or Bi-Est.

Estradiol + Progestin - This column refers to birth control pills, contraceptive rings, or conventional hormone replacement therapy that includes an estrogen and a progestin (synthetic progesterone). If you are taking bioidentical progesterone and estradiol, please do not mark this column.

Progestin only - This column refers to contraceptive options that are progestin only, i.e. hormonal IUDs, Depo injections, or the minipill. If you are taking bioidentical progesterone, do not mark this column.

Estrone (E1) - Rarely prescribed, estrone is a component of tri-est formulations.

Estradiol (E2) - This refers to bioidentical estradiol, one component of Bi-Est. This is usually administered in patches or creams, but is sometimes given orally or via vaginal suppository.

Estriol (E3) - A component of Bi-Est. Typically given in a cream, vaginal suppository, or rarely a pill.

Progesterone (P4) - Mark this column if you take bioidentical progesterone. Progesterone can be administered orally, sublingually, or in a cream. If you are getting a synthetic progestin in a birth control pill, or you use an IUD, do not mark this column.

Testosterone (T) - If you take testosterone of any kind (oral, patch, cream, or injection), mark it here.
DHEA - Fill in if you are using DHEA or 7-keto DHEA.

Corticosteroid - Glucocorticoid medications like hydrocortisone, Prednisone, Dexamethasone, etc. are noted here, as are hydrocortisone creams used for skin conditions. Asthma inhalers can contain corticosteroids, and rarely lip balm.

Pregnanolone - Any pregnanolone containing product should be noted here.

Thyroid - If you take T4, T3, or glandular thyroid, please make note of it here.

Melatonin - Any melatonin containing product can be noted in this column.

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