

Saliva Testing

Because hormones play such a vital role in maintenance of health, knowledge of an imbalance in any one or more hormones can help illuminate the cause of health problems and provide a rational basis for correcting the imbalance through hormone supplementation, diet and exercise.



Saliva Testing and Stress

The best way to test for the effects of stress is through saliva testing. NASA and the US Air Force use saliva testing to test for adrenal fatigue in fighter pilots and astronauts. The test requires that you produce saliva samples four times over the course of a day.

The results of the saliva tests allow the physical affects of stress to be measured. Adrenal dysfunction can then be corrected by using nutritional supplements designed to assist you the adrenal gland in recovery from the effects of stress. Your health care provider can discuss the options available.

Are the levels of steroid hormones in blood and saliva the same?

When the various glands manufacture the steroids they are released into the bloodstream bound to carrier proteins. Only a small fraction (1-5%) of a given amount of steroid hormone breaks loose from the carrier protein in the bloodstream and is free to enter target tissues. This free or unbound hormone is what we want to measure, since it is active or bioavailable to the target tissues such as the breast, uterus, brain and skin.

Many studies in the scientific literature have shown that there is a strong correlation between the levels of steroid hormones in saliva and the bio-available (free) levels of steroids in the bloodstream. The amount of steroid hormone that enters the salivary ducts and the saliva is representative of the fraction of steroids in the bloodstream that are bio-available to other tissues in the body.

Advantages of saliva vs blood testing of steroid hormones Saliva collection is easy, can be done anywhere, any time and at a much lower cost. Serum hormone testing is stressful, and the stress of a blood drawn can sometimes alter the result. Blood has to be drawn at a doctor's office or drawing station, and it is more difficult to obtain samples at the desired times (e.g. early am), multiple times through the day or late evening. There is also an extra cost involved in drawing blood, independent of the cost for the test itself.

Hormones in saliva are exceptionally stable, allowing wide latitude in collection and shipment. Samples can be stored at room temperature for at least a week without loss of activity, so samples can be shipped to the testing facility by regular mail. Blood, on the other hand, must be kept cool on ice packs, increasing costs for shipping as well as the likelihood of error due to improper handling.