

# SKIN PROBLEMS RELATED TO HORMONE DYSFUNCTION

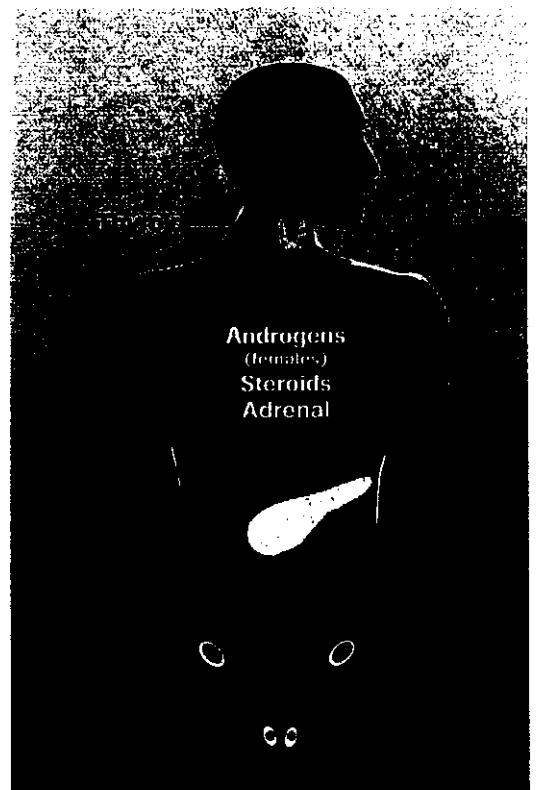
**H**ormonal dysfunction is a topic that has aroused a great deal of interest lately, since the majority of the female population between the ages of 34 to 45 are either beginning to or already are experiencing menopause. Women in this age group do not acquire skin problems overnight or as soon as they reach menopause. These problems usually occur gradually over time.

It is important for you, as an aesthetician, to know how the skin is influenced by the hormones in order to provide proper skin care to all your clients. Possible hormonal deficiencies, therefore, should be considered part of the total picture in the evaluation of the client's skin.

Fortunately, the vast majority of skin conditions associated with hormonal dysfunction are minor and pose no major threat to health; but since hormones do play a crucial role in the beauty of the skin, they merit discussion. It is important to point out that, although the same level of hormone may be found in the bloodstream of two women, the response may not necessarily be the same.

A hormone is a cellular product in body fluids that has a specific effect on other cells. The various glands that make up the hormonal system establish and control a communications network that is complementary to the nervous system. However, instead of using neural impulses, these glands secrete hormones (chemical messengers) that affect other glands and tissues in other parts of the body. The bloodstream carries these hormones to their target areas where they wield their specific effects causing a wide range of actions (see chart page 50).

**Victoria Rayner**



## TREATMENT AND OUTLOOK

A study of these hormones of the body and their functions is very **necessary** as a great many skin conditions arise in which these hormones are involved. The aesthetician is not required and, in fact, should not audibly diagnose **any** hormonal dysfunction, but should be able to recognize such a disorder. With this knowledge we, as aestheticians, may help our clients to seek the proper medical care necessary to counteract these adverse effects.

Hormones affect both the intracellular and **extra-cellular** fluid volume. Too much fluid makes the skin look swollen, and the pores appear oversized. Insufficient fluid causes the skin to look **saggy**. The hormones **also** regulate cellular turnover and control the temperature and the color tone of the skin.

### THE FIVE HORMONES MOST ASSOCIATED WITH THE SKIN

#### ANDROGENS

The androgen hormone with the greatest potency

and effect is testosterone. In men it is produced in the testes and in women, in the adrenal gland. Too much androgen encourages the enlargement of the oil glands which in turn produces an excessive production of sebum. When this occurs, acne may result. Hair loss may also **occur**. Birth control pills and stress stimulate the **androgens**. Over stimulation of this hormone may cause hair growth on the face. Certain foods have high androgen content and should be avoided if high **androgen** levels are suspected. They are beef, liver and wheat gel-in.

#### ESTROGEN

Estrogens are produced in the ovaries. Adequate estrogen levels reduce sebum production and enhance skin elasticity. A decline in estrogen production occurs around the age of 40. Estrogen replacement therapy (ERT) is prescribed to relieve menopausal symptoms such as hot flashes and night sweats. Women taking estrogen supplements will experience darker and larger moles. Note: Moles that

### SOURCES AND MAIN EFFECTS OF HORMONES

Part of Body	Hormone Secreted	Effects
Hypothalamus	Releasing Hormones	Stimulates hormonal secretions by pituitary gland
Pituitary Gland	Growth Hormone	Stimulates growth and metabolism
	Prolactin	Stimulates milk production after childbirth
	ACTH (adrenocorticotrophic hormone)	Stimulates cortisol production of adrenal glands
	TSH (thyroid-stimulating hormone)	Stimulates hormonal production by thyroid gland
	FSH (follicle-stimulating hormone) & LH (luteinizing hormone)	Stimulates gonads (ovaries or testes)
	ADH (antidiuretic hormone)	Acts on kidneys to reduce urinary production
Brain	Oxytocin	Stimulates contractions of uterus during labor and ejection of milk during breast feeding (lactation)
	MSH (melanocyte-stimulating hormone)	Promotes production of skin pigment (melanin)
Thyroid Gland	Thyroid hormone	Alleviates pain
Parathyroid Gland	Thyrocalcitonin	Increases metabolic rate; affect growth
	Parathyroid hormone	Controls levels of calcium in blood
Thymus	Thymic Hormone	Controls levels of calcium in blood
Adrenal Glands	Epinephrine	Stimulates lymphocytic development
	Norepinephrine	Prepare the body for stress
	Cortisone	Prepare the body for stress
Kidneys	Renin	Regulate sodium and potassium excretion by kidneys
	Erythropoietin	Regulate blood pressure
	Vitamin D	Stimulate erythropoietin production
Placenta	estrogens; progesterone	Control calcium and phosphorus metabolism
	estrogens; progesterone	Control blood sugar
Testes	Testosterone	Maintains pregnancy
	Testosterone	Stimulates secretion of sebaceous glands, enzymes
		Affects development of male secondary sex characteristics and genital organs
		Affects development of female secondary sex characteristics and genital organs



are more than one color and those which do not have a distinct border will warrant immediate examination by a dermatologist. Some of the side effects of estrogen are the appearance of blood vessels (telangectases), cherry **angiomas** and other skin lesions. High levels of estrogen can also result in **rosacea**.

### THYROID

Unbalanced levels of the thyroid hormones, especially too much (**hyper**-thyroidism) result in persistent flushing, excessive sweating and thinning of the hair. Hair color can become whiter or darker. Nails may also split horizontally or separate from the nail bed. Too little of thyroid hormones (**hypo**-thyroidism) results in dry, brittle hair, hair loss, loss of eyebrows, dry skin and premature wrinkling. To determine thyroid imbalance, suggest that your client asks his or her physician to administer a **T3** or **T4** thyroid function test (TFT's). The test will determine

the presence of hormones unless your client is taking birth control pills.


### STEROIDS

The adrenal glands produce steroids. Too much (**hyper**steroidism or **hyper**corticism) causes the skin to thin and makes it **more** prone to infection. It becomes plagued with "broken" (dilated) capillaries (telangectases) and has poor healing capability. In addition, **over** stimulation causes overproduction of the sebaceous glands, which could lead to acne flare-ups.

Hypo-steroidism or **hypo**corticism (insufficient steroid) results in loss of body hair and hyperpigmentation (excess pigment) of the skin, nails and mucous membranes.

### INSULIN

Insulin is produced by the pancreas. A deficiency leads to diabetes, poor healing, flushed complexion, boils and other bacterial infections and yeast infections due to candidiasis.



Victoria Rayner is a fifteen-year veteran of aesthetics. She is a Dermatology Associate at the University of California Medical School in San Francisco. She has also been the recipient of the International Make up Society's Outstanding Achievement Award. She has authored two books, *Clinical Cosmetology, A Medical Approach to Esthetic Procedures*, and *A Survival Guide for Today's Career Woman*. Founder and director of the *Camouflage Clinics*, Victoria is the owner and an instructor of the *Center For Appearance & Esteem* in San Francisco, California. Correspondence should be sent to *Dermascope*, 3939 E. Hwy. 80, Suite 408, Mesquite, Texas 75150; or via fax to (972) 686-5901 or e-mail at [dermascope@aol.com](mailto:dermascope@aol.com). For more information point your browser to [www.dermascope.inter.net](http://www.dermascope.inter.net).

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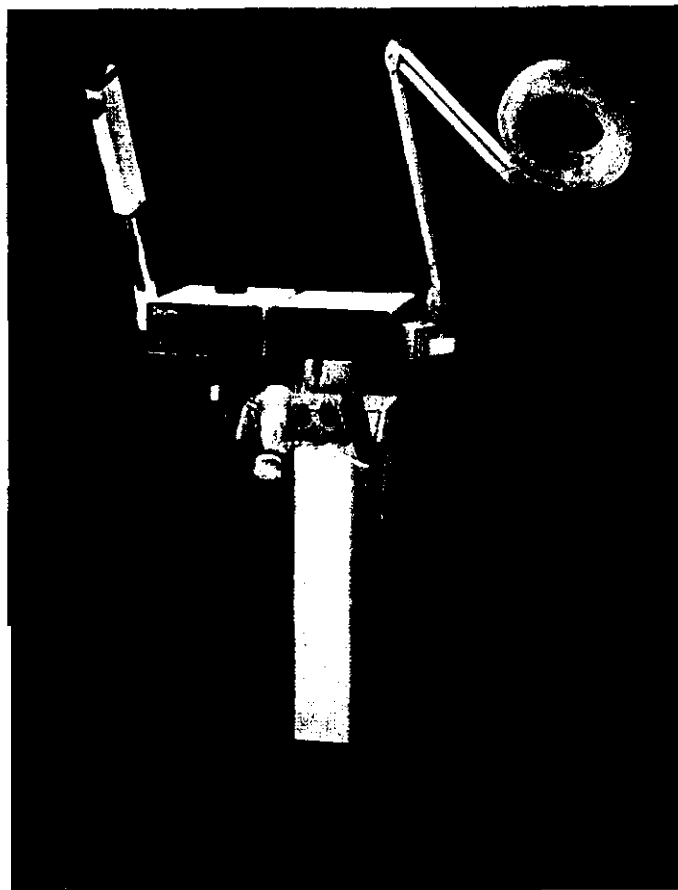
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