(cortisone-like), which are the most abundant; desoxycorticosterone-like horhomes; and the adrenal androgens. The production of compound F-like hormones is clinically the most significant, for these particular steroids are the ones that produce striking clinical response in so many diseases, and which enable the tissues and the body as a whole to meet serious stress. Adequate therapy usually produces the following desirable general changes: Temperature, if elevated, usually returns to normal within 6 to 18 hours. Pain is abolished within a short time and becomes an index of the reversibility of the disease under treatment. Patients develop a sense of well-being and of mental activity bordering on euphoria. Fibroblastic proliferation and inflammatory processes are blocked.

SPECIAL PRECAUTIONS WITH ADRENOCORTICOTROPIC THERAPY

This product functions by stimulating the production of steroid hormones by the adrenal cortices, and in this manner influences protein and carbohydrate metabolism, alters the metabolism of electrolytes with retention of sodium and excretion of potassium. In this same manner the steroid hormones of the adrenal cortices induce atrophy of the thymus and produce an increase in antihyaluronidase activity. Prolonged or excessive stimulation of the adrenals may produce undesirable effects, and for this reason each patient should be carefully observed to determine his response.

1. *Edema—With large doses or during prolonged use, sodium retention with intake, giving a diuretic, or by temporarily discontinuing therapy until diuresis results. If potassium deficiency with muscular weakness or edema occurs, supplemental potassium should be given: 1 Gm potassium citrate or chloride given orally three times a day.*

2. *Temperature and Infection—This product may mask signs of concomitant serious infections and therapy should be discontinued temporarily in order to permit diagnosis of the infection. Therapy may be resumed if warranted after specific therapy for the infection has been given.*

3. *Disturbed Psyche—If psychotic changes appear, these isolated cases should be treated by reducing or discontinuing dosage of corticotropin and the use of sedatives should begin.*

4. *Hyperglycemia and Glycosuria—Excessive dosage may increase the blood sugar and glycosuria may occur; this can be eliminated by reduction of dosage or cessation of therapy (see contraindications for diabetes below).*

5. *Hypertension—In certain individuals a marked increase in blood pressure may occur, and in these instances the dose should be reduced or eliminated.*

6. *Acne and Hirsutism—Prolonger therapy may cause overstimulation of androgenic hormone secretion which may induce these symptoms in some women; and these conditions may be controlled by suitable reduction in dosage. In severe cases, therapy may have to be discontinued.*

7. *Hypersensitivity—Susceptible individuals may become sensitized to traces of protein that accompany corticotropin so that subsequent injections given after intervals of several days may give rise to hypersensitivity phenomena. Therefore, patients who have previously been treated with corticotropin should be tested for sensitivity, and sensitive individuals should be desensitized before treatment is begun.*

Test of Adrenocortical Activity—One of the requisites to successful corticotropin therapy is a functioning adrenal cortex. The functional capacity of the adrenal conditions clinical response. A reduction in the number of circulating cosinophils is considered to reflect increased secretion of adrenal steroids and indicates a positive response to corticotropin. Normal subjects respond to the injection of adequate doses of ACTH with at least a 50 per cent fall in circulating cosinophils. The test (known as the Thorn test) is applied in the diagnosis of Addison's disease, as a test of adrenal reserve pre- and post-operatively, to determine the patient's ability to react to stress, and to differentiate between panhypopituitarism, functional hypopituitarism and Addison's disease. In hypopituitarism, where hypofunction lies in the hypophysis, reaction to the test is positive. In Addison's disease, where the deficiency resides in the adrenals, the response is negative.

Dosage Considerations—Because functional capacity of the adrenal varies with the patient, the dose must be individualized, the aim being to obtain a therapeutic effect with minimal dosage and minimal metabolic changes. *In severe cases, it may be advisable to initiate treatment with aqueous corticotropin (not*