OBESITY AND THE PHYSIOLOGY OF OSMOTIC TRANSFERS Royal Lee, D.D.S.

(Physicians Only)

Cell nutrition is only possible by osmosis of nutrients and osmotic elimination of toxic wastes. Obesity results when the factors are incompetent that relate to the mobilization and use of the fat reserves.

The central regulator of tissue permeability is the posterior pituitary gland. A daily dosage of one hundredth grain will reduce osmotic assimilation through the intestinal wall of nutrients and cause a loss of appetite within a few days. The loss of appetite is probably due to the reduced permeability of the vascular walls to fat, which cannot be so readily deposited. and remains in the blood stream. With a high blood fat, "no appetite" is the result.

To more readily mobilize more of the reserve fat, lecithin dosage may be desirable and small doses of bile salts. Both are emulsifiers, must be present in the blood stream to aid in the process of fat mobilization.

The key to this whole syndrome is the posterior pituitary action. Most overweight people have an obviously disordered endocrine balance, but too much attention in the past has been directed to the thyroid. Sometimes the thyroid is at fault, but not very often. The pituitary deficient patient is the type that cannot reduce in spite of food restriction. The effect exerted by the posterior pituitary is accomplished by its action of cholesterol, which substance is capable of forming films one molecule thick on tissue membranes and thereby regulate osmotic transfers. The use of the pituitary fraction for this purpose must be attended with watchful attention for possible untoward effects, for this hormone complex is just as dangerous if improperly managed as the thyroid factor.

The effects of overdosage are those of a deficiency of the Vitamin G complex. In fact, it is probable that the use of white bread, refined sugar and candy, by creating a vitamin deficiency, is the basic cause of the obesity syndrome we have under consideration. These symptoms are heart pains, nervous tension, insomnia, venous congestion, visible veins on various parts of the body, varicose veins, hemorrhoids, ect. We must consider the probability that the venous degeneration is due to the failure of the posterior pituitary pitressin to protect the veins from excess hydrostatic pressure of the blood, as the arteriole tone is dependent upon the presence of that hormone in the blood stream.

These patients soon lose their lethargic state of mind and body just as they lose their appetites. The suggested diet is fresh grape juice, buttermilk of raw certified milk, raw peanuts or almonds for protein, and alfalfa tea or tablets of alfalfa minerals.

The specific action of Posterior Pituitary is to decrease osmotic transfers and raise blood pressure to some extent.

The action of Lecithin is to lower blood pressure and mobilize reserve fat into the blood stream.

Bile salts specifically stop an abnormal craving for sweets or candy.

Form No. RC-176 April 6, 1954