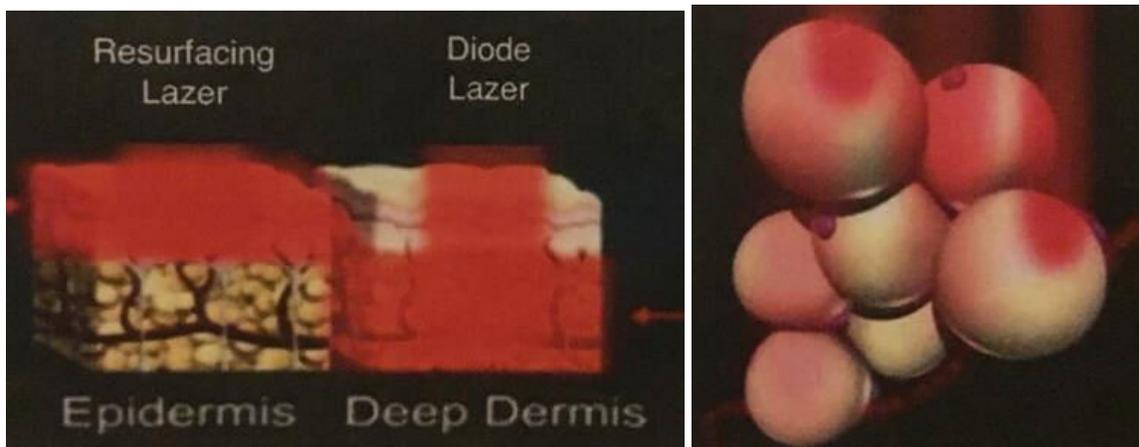


## Understanding Fat

Adipose or fatty tissue is the body's means of storing metabolic energy over extended periods of time. Depending on current physiological condition, adipocytes either store fat derived from diet and liver metabolism or degrade stored fat to supply fatty acids and glycerol to the circulation.

These metabolic activities are regulated by several hormones (i.e. insulin, glucagon, and epinephrine). The location of the adipose tissue determines its metabolic profile: Visceral Fat is located within the abdominal wall (beneath the wall of abdominal muscle) whereas Subcutaneous Fat includes fat that is located in the abdominal area beneath the skin but above the muscle wall.



## Why Do We Store Fat?

Fat is produced when an excess of calories is consumed in the form of either food or drink. When the diet provides the body with more calories than it requires for general maintenance and its current level of physical activity, this excess energy is stored in the form of body fat. Our Body tends to store fat according to our individual genetic code. In other words, hereditary characters may dictate the areas in your body that accumulate fat.

## Where Do We Store Fat?

Female: if you are a typical female you will accumulate fat predominantly below the waist in the gluteofemoral region (lower abdomen, buttocks, hips, and thighs) creating a "**pear shape**".

Male: They typical male tendency is to accumulate fat predominantly above the waist around the midriff creating the "**apple shape**". Interestingly, fat cells usually do not generate after puberty. Therefore, in adults, even as the body stores more fat, the number of fat cells remains the same.

## Adipose Cell

The removal of excess fat takes place by the reversal of the bodily processes that stores energy. If you increase your physical activity and do not increase your intake of food, you will draw the extra energy needed from your stored fat. Your weight is determined by the rate at which you store energy from the food that you eat, and the rate at which you use that energy. As your body breaks down fat, each fat cells get smaller, but the number of fat cells remains the same.

## How Lipo Laser Works

Laser energy safely penetrates the patient's skin at a specific wavelength (650 nm) targeted for adipose (fat) cellos. Adipose cells are permeated, releasing free fatty acids (FFA's), water, and glycerol. Together these compounds are known as triglycerides. Triglycerides are normally released from fat cells when the body needs energy. Once released, the glycerol and free fatty acids are used by the body as an energy source. Adipose cells "shrink" significantly, resulting in inch loss for patients. Exercise and 10 minute whole body vibration sessions are recommended immediately post-treatment to burn FFA's within the body lymphatic system.