What Is Lipodystrophy?

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Lipodystrophy is an umbrella term referring to abnormal changes in the distribution of fat in the body, including:

Lipohypertrophy: abnormal build-up of fat in certain parts of the body; and
Lipoatrophy: abnormal loss of fat in certain parts of the body.

What causes lipodystrophy?
The causes of lipodystrophy are not very well understood. Research suggests that there are many contributing factors, including:

- Antiretroviral treatment, most specifically with three of the earliest ARVs, which are rarely prescribed today:

  -Retrovir (AZT, or zidovudine); which is also is included in Combivir (zidovudine/lamivudine) and Trizivir (abacavir/zidovudine/lamivudine)

  -Zerit (d4T, or stavudine)

  -Videx (ddI, or didanosine)

- The seesaw effect as HIV depletes the immune system and ARVs lead to its resurgence
- Abnormal shifts in the body's metabolism of fatty acids
- Hormonal changes
- Genetics
- Diet and obesity
- Damage, caused both by HIV and some ARVs, to the mitochondria, which are the energy centers of cells

The most common forms of HIV-related lipohypertrophy:

- Buildup of fat around the organs, causing a firm, enlarged abdomen
- Breast enlargement, which can occur in both men and women
- A fat pad on the upper back and neck area (the “buffalo hump”)
- Enlargement of the neck
- Round lumps of fat under the skin

Lipoatrophy most often occurs in the:

- Face, particularly the cheeks, “smile lines,” temples and eye sockets
- Arms
- Legs
- Buttocks
- Soles of the feet (less common)

Lipodystrophy is associated with what are called metabolic abnormalities, including:

- Abnormal cholesterol; high cholesterol can raise the risk of heart attack or stroke
- Insulin resistance and a high level of sugars in the blood (hyperglycemia); these changes can lead to diabetes

People living with HIV most at risk for lipodystrophy include:

- Whites
- Older people
- Those who start HIV treatment with lower CD4 cell counts and/or higher viral loads
- People who have ever taken Retrovir, Combivir, Trizivir, Zerit or Videx
- Obese individuals, and those who experience significant shifts in weight

Many HIV-positive people these days never experience lipodystrophy.

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