

# *HIV* YOUR Body &

## Body shape changes: weight loss

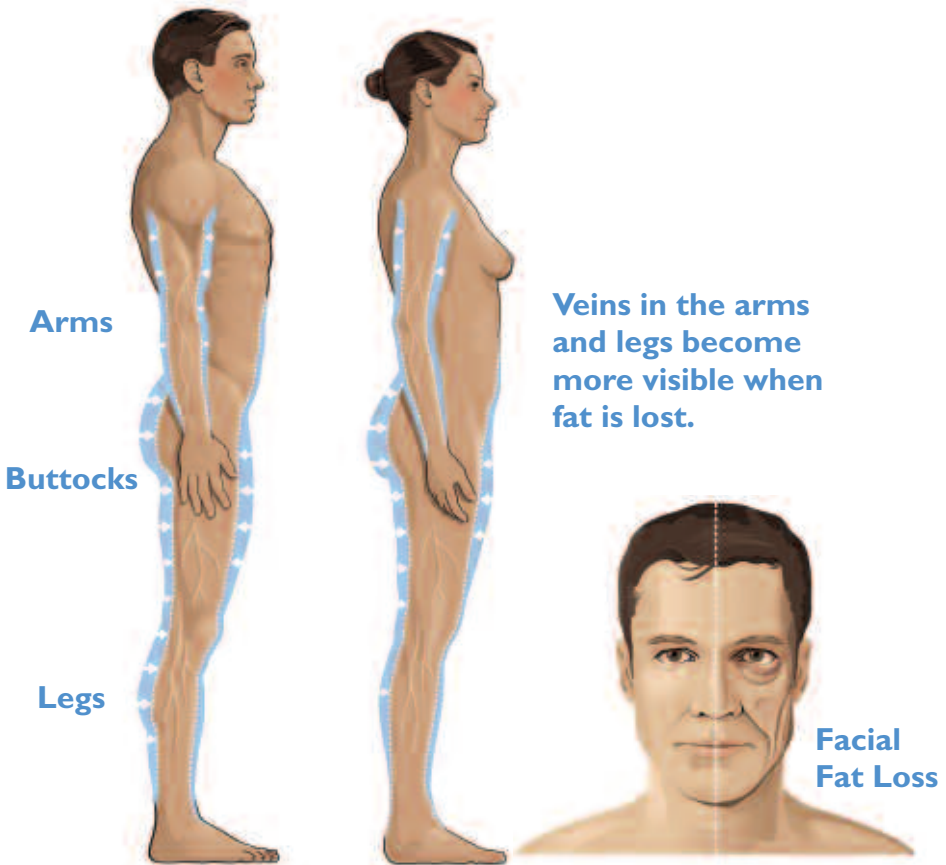
Many factors affect the way your body stores fat. Living with HIV is one of them.

# Are you losing weight where you'd rather keep it?

Many people who have HIV see changes in the shape of their body. Some appear thinner because they lose fat from their face, arms, legs, and buttocks. This condition is called “lipoatrophy” (lip-oh-AT-troh-fee).<sup>1</sup>

HIV can cause lipoatrophy. Some medicines used to treat HIV can cause this condition too.

## Where fat may be lost in people treated for HIV



# Will you get lipoatrophy?

Certain factors increase the chances of lipoatrophy in people who have HIV.

## Risk factors for lipoatrophy with HIV or HIV treatment

- Regimens containing certain HIV medicines<sup>2-4</sup>
- Being male<sup>4-6</sup>
- Older age<sup>2,7</sup>
- White race<sup>2,7</sup>
- Very low CD4 count (less than 200 cells/mm<sup>3</sup>)<sup>8,9</sup>
- AIDS diagnosis<sup>9,10</sup>

Body shape changes have been seen with antiretroviral medicines. The causes and long-term health effects of these changes are not known.<sup>11</sup>

## When does lipoatrophy start?

For most people who develop lipoatrophy, the weight loss occurs slowly, over a year or so.<sup>12,13</sup> All people are different, and some develop lipoatrophy more quickly than others. Some people do not develop lipoatrophy at all.

# If you're concerned about lipotrophy, talk to your healthcare provider

HIV treatments are available that cause less lipotrophy. Using one of these medicines may help avoid or delay the problem or may keep it from getting worse.<sup>14-16</sup> Once it occurs, lipotrophy may not be reversible.



Your doctor will know if one of these drugs may be right for you. Some studies have shown that many people whose HIV is under control can change all or part of their treatment without losing viral control.<sup>3,16,17</sup>

**References:** 1. Lichtenstein KA. Redefining lipodystrophy syndrome: risks and impact on clinical decision making. *J Acquir Immune Defic Syndr*. 2005;39:395-400. 2. Lichtenstein KA, Ward DJ, Moorman AC. Clinical assessment of HIV-associated lipodystrophy in an ambulatory population. *AIDS*. 2001;15:1389-1398. 3. Carr A, Workman C, Smith DE, et al. Abacavir substitution for nucleoside analogs in patients with HIV lipotrophy: a randomized trial. *JAMA*. 2002;288:207-215. 4. Savès M, Raffi F, Capeau J, et al. Factors related to lipodystrophy and metabolic alterations in patients with human immunodeficiency virus infection receiving highly active antiretroviral therapy. *Clin Infect Dis*. 2002;34:1396-1405. 5. Thiébaud R, Daucourt V, Mercié P, et al. Lipodystrophy, metabolic disorders, and human immunodeficiency virus infection: Aquitaine Cohort, France, 1999. *Clin Infect Dis*. 2000;31:1482-1487. 6. Aberg JA, Gallant JE, Anderson J, et al. Primary care guidelines for the recommendation of the HIV Medicine Association of the Infectious Diseases Society of America. *Clin Infect Dis*. 2004;39:609-629. 7. Bogner JR, Vielhauer V, Beckmann RA, et al. Stavudine versus zidovudine and the development of lipodystrophy. *J Acquir Immune Defic Syndr*. 2001;27:237-244. 8. Tang AM, Jacobson DL, Spiegelman D, Knox TA, Wanke C. Increasing risk of 5% or greater unintentional weight loss in a cohort of HIV-infected patients. *J Acquir Immune Defic Syndr*. 2005;40:70-76. 9. Lichtenstein KA, Delaney KM, Armon C, et al. Incidence of and risk factors for lipotrophy (abnormal fat loss) in ambulatory HIV-1-infected patients. *J Acquir Immune Defic Syndr*. 2003;32:48-56. 10. Heath KV, Hogg RS, Singer J, et al. Antiretroviral treatment patterns and incident HIV-associated morphologic and lipid abnormalities in a population-based cohort. *J Acquir Immune Defic Syndr*. 2001;30:440-447. 11. TRUVADA® (emtricitabine/tenofovir disoproxil fumarate) Prescribing Information. Gilead Sciences, Inc. 2005. 12. Mallal SA, John M, Moore CB, et al. Contribution of nucleoside analogue reverse transcriptase inhibitors to subcutaneous fat wasting in patients with HIV infection. *AIDS*. 2000;14:1309-1316. 13. Dubé MP, Zackin R, Tebas P, et al. Prospective study of regional body composition in antiretroviral-naïve subjects randomized to receive zidovudine+lamivudine or didanosine+stavudine combined with nelfinavir, efavirenz, or both: A5005s, a substudy of ACTG 384 [abstract]. *Antivir Ther*. 2002;7:L18. Abstract 27. 14. Dubé MP, Stein JH, Aberg JA, et al. Guidelines for the evaluation and management of dyslipidemia in human immunodeficiency virus (HIV)-infected adults receiving antiretroviral therapy: recommendations of the HIV Medicine Association of the Infectious Diseases Society of America and the Adult AIDS Clinical Trials Group. *Clin Infect Dis*. 2003;37:613-627. 15. DeJesus E. Cardiovascular risk and lipotrophy: management in HIV-infected patients. Available at: [www.medscape.com/viewprogram4040\\_pnt](http://www.medscape.com/viewprogram4040_pnt). Accessed May 12, 2005. 16. Dreschler H, Powderly WG. Switching effective antiretroviral therapy: a review. *Clin Infect Dis*. 2002;35:1219-1230. 17. Katlama C, Fenske S, Gazzard B, et al. TRIZAL study: switching from successful HAART to Trizivir™ (abacavir-lamivudine-zidovudine combination tablet): 48 weeks efficacy, safety, and adherence results. *HIV Med*. 2003;4:79-86.

# How are you doing with your

# *HIV* *medicines* ?

It is important to take HIV medicines correctly. Side effects or concerns about side effects, such as a change in the way you look, may make taking HIV medicines more difficult.

This survey can help you identify issues that may get in the way of your taking your HIV treatment the way you should. Fill out the survey and take it to your next appointment. Your healthcare provider may be able to find a way to make your HIV treatment fit better with your way of life.

# Taking your HIV medicines:

## Are you concerned about losing or gaining weight?

*HIV medicines can help you stay healthy longer, but they may also have other effects on your body, such as changing the way your body stores fat. The answers to these questions can suggest whether or not you might develop lipodystrophy or lipohypertrophy, and help you work with your healthcare provider. There may be a way to reduce your risk.*

NAME \_\_\_\_\_ DATE \_\_\_\_\_

**1** Do you ever skip a dose of your HIV medicine?

Yes. Why? \_\_\_\_\_ How often? \_\_\_\_\_  
 No

**2** Have you been losing weight without trying to?

Yes. How much? \_\_\_\_\_ pounds  No

**3** Have you noticed any changes in the way your body looks?

My face or body looks a little thinner than it used to.  I have put on weight.  
 My face or body is much thinner than it used to be.  I have not noticed any change.

**4** Do you have any of these risk factors for lipodystrophy? Check any that apply to you.

Being male  CD4 count less than 200 cells/mm<sup>3</sup>  White race  
 Age 40 years or older  AIDS diagnosis

**5** Are you concerned that the HIV medicine you are taking now might cause lipodystrophy (weight loss in the arms, legs, buttocks, or face)?  Yes  No

Which HIV medicines are you taking?

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**6** Do you have any of these risk factors for lipohypertrophy? Check any that apply to you.

- Treatment with a protease inhibitor  Taking HIV medicines for more than 5 years  Increase in CD4 count
- Age 35 years or older  Being female

**7** Are you concerned that the HIV medicine you are taking now might cause lipohypertrophy (weight gain in the upper back and neck, breasts, or torso)?  Yes  No

**8** Would you be interested in talking to your doctor about whether a change to another HIV medicine may be right for you?  Yes  No

**9** If you could change one thing about your HIV treatment, what would it be?

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*Use your answers to talk to your healthcare provider.*



**GILEAD**

# *HIV* & YOUR Body

## **Body shape changes: weight gain**

Many factors affect the way your body stores fat. Living with HIV is one of them.

# Are you gaining weight in unusual places?

Many people who are treated for HIV notice changes in the shape of their body. Some people taking HIV medicines (these are called antiretroviral agents) may gain weight in the torso, develop lumps of fat at different places on the body, or gain weight in the upper back and neck. In both men and women, fat deposits in the breasts may cause them to become larger. This condition is called “lipohypertrophy” (lip-oh-hy-PER-troh-fee).<sup>1</sup>

## Where fat may accumulate in people treated for HIV

Upper back  
& neck

Lumps of  
fat in certain  
areas of the  
body



Breasts

Torso

# Will you get lipohypertrophy?

Certain factors increase a person's risk for lipohypertrophy. Some antiretroviral treatments increase the risk.<sup>2,3</sup> Women have greater risk for weight gain because their bodies naturally have more fat.<sup>4-6</sup>

## Risk factors for weight gain with HIV or HIV treatment

- Treatment with a protease inhibitor<sup>2,3</sup>
- Older age<sup>7,8</sup>
- Being a woman<sup>4-6</sup>
- Longer time on HIV treatment<sup>3,7</sup>
- Increase in CD4 count<sup>6,8</sup>

# When does lipohypertrophy start?

For most people who develop lipohypertrophy, the weight gain occurs slowly, over a year or so.<sup>6,9</sup> All people are different, and some develop lipohypertrophy more quickly than others. Some people do not develop lipohypertrophy at all.

# If you're concerned about lipohypertrophy, talk to your healthcare provider

HIV treatments are available that cause less change in fat storage and may help prevent abnormal weight gain.<sup>10,11</sup> Your doctor will know if one of these medicines may be right for you. Some studies have shown that patients whose HIV is under control can change part or all of their antiretroviral treatment without losing viral control.<sup>11-13</sup>



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**References:** 1. Lichtenstein KA. Redefining lipodystrophy syndrome: risks and impact on clinical decision making. *J Acquir Immune Defic Syndr*. 2005;39:395-400. 2. Heath KV, Hogg RS, Singer J, et al. Antiretroviral treatment patterns and incident HIV-associated morphologic and lipid abnormalities in a population-based cohort. *J Acquir Immune Defic Syndr*. 2001;30:440-447. 3. Bogner JR, Vielhauer V, Beckmann RA, et al. Stavudine versus zidovudine and the development of lipodystrophy. *J Acquir Immune Defic Syndr*. 2001;27:237-244. 4. Aberg JA, Gallant JE, Anderson J, et al. Primary care guidelines for the recommendation of the HIV Medicine Association of the Infectious Diseases Society of America. *Clin Infect Dis*. 2004;39:609-629. 5. Galli M, Veglia F, Angarano G, et al. Gender differences in anti-retroviral drug-related adipose tissue alterations. Women are at higher risk than men and develop particular lipodystrophy patterns. *J Acquir Immune Defic Syndr*. 2003;34:58-61. 6. Martinez E, Mocroft A, Garcia-Viejo MA, et al. Risk of lipodystrophy in HIV-1 infected patients treated with protease inhibitors: a prospective cohort study. *Lancet*. 2001;357:592-598. 7. Lichtenstein KA, Ward DJ, Moorman AC. Clinical assessment of HIV-associated lipodystrophy in an ambulatory population. *AIDS*. 2001;15:1389-1398. 8. Savès M, Raffi F, Capeau J, et al. Factors related to lipodystrophy and metabolic alterations in patients with human immunodeficiency virus infection receiving highly active antiretroviral therapy. *Clin Infect Dis*. 2002;34:1396-1405. 9. Graham NM. Metabolic disorders among HIV-infected patients treated with protease inhibitors: a review. *J Acquir Immune Defic Syndr*. 2000;25(suppl 1):S4-S11. 10. Dubé MP, Stein JH, Aberg JA, et al. Guidelines for the evaluation and management of dyslipidemia in human immunodeficiency virus (HIV)-infected adults receiving antiretroviral therapy: recommendations of the HIV Medicine Association of the Infectious Diseases Society of America and the Adult AIDS Clinical Trials Group. *Clin Infect Dis*. 2003;37:613-627. 11. Dreschler H, Powderly WG. Switching effective antiretroviral therapy: a review. *Clin Infect Dis*. 2002;35:1219-1230. 12. Katlama C, Fenske S, Gazzard B, et al. TRIZAL study: switching from successful HAART to Trizivir™ (abacavir-lamivudine-zidovudine combination tablet): 48 weeks efficacy, safety, and adherence results. *HIV Med*. 2003;4:79-86. 13. Carr A, Workman C, Smith DE, et al. Abacavir substitution for nucleoside analogs in patients with HIV lipodystrophy: a randomized trial. *JAMA*. 2002;288:207-215.

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