

Muscle-wasting effects of low carb diets on people with HIV

By Shelley

It is not hard to go into any grocery store these days and see at least one product that advertises low or no carbohydrates on the package. The world seems to have embraced the idea that no or low carbohydrate diets are good for us. It is a common misconception that carbohydrates are fattening. Because of this misconception the dieter may begin to avoid carbohydrates, leaving protein and fat for calorie intake. Remember that fat, carbohydrates, and protein are the only sources of calories in the diet

The most popular diets today are high in protein and low in carbohydrates. These diets do work. However, the danger of having a high protein, and low carb diet is that when the source of the protein is meat, the meat is usually also high in fat and has higher calories per mouthful than a high carb diet. One of the reasons that a high protein, low carb diet works is that the fat in the food slows down digestion quite a bit, so you feel satisfied with less food.

Another reason for the seeming effectiveness is that high protein consumption tends to cause loss of body water. If you lose 10 pounds on a high protein diet, two to three of those pounds may be by dehydration. Later your body reabsorbs the water and you regain that portion of your weight, making the diet less effective than it seems.

But this is not the major criticism of a high protein, high fat, and low carb diet. The big danger is that this diet is conducive to muscle loss and degeneration of muscle tone and efficiency. In a well balanced diet, the carbs in the meal are used for glucose production, leaving the protein available for muscle repair. The net result of a high protein, and low carb diet is that the muscles break down

and are not repaired, with a consequent loss of lean body mass. It is possible to lose as much as one pound of muscle for every pound of fat lost on one of these diets.

Wasting syndrome, also referred to as loss of body mass or lean body mass, is an AIDS-related complication and can be life threatening. If this kind of diet produces muscle loss among non-HIV+ people, there is all the more reason for HIV+ people to pay attention to a balanced diet.

What happens when you eat too much protein?

When there is protein (amino acid) in excess of the body's requirements for it, it is sent to the liver and converted to fat. This process is called deamination and can be stressful if your body has to do a lot of it. During the deamination process, the nitrogen that is released from the amino acid is converted into ammonia, which is then changed to urea. Urea is very toxic, but to a lesser extent than ammonia. To be eliminated from the body, it must be diluted in the urine. In a normal balanced diet your body can very easily rid itself of urea. Yet, when you increase your intake of protein you increase the need to rid your body of urea and more fluids are required to dilute it. You may drink a lot more water but it won't necessarily be enough to adequately hydrate your body, and your body will inevitably take water from its own tissues. You now have suddenly put a very stressful burden on your kidneys, which are working overtime to get rid of the urea. Some HIV medications are hard on the kidneys and double taxing is not a good idea.

How can you be sure you're getting enough protein in the diet while also getting a good balance of carbohydrates and vitamins?

A reasonable rule of thumb is to eat two servings daily of three ounces of a meat product or a meat substitute, like tofu for example. In addition, have two servings, one cup each, of nonfat or low-fat milk or milk substitute such as yogurt. Balance these high-protein foods with carbohydrates by eating four servings of fruits or vegetables each day and four servings of high-fiber breads and cereals, which are grain products.

While it's important to balance your diet with adequate amounts of protein and carbohydrates, you do not have to worry about getting enough fat. It is almost impossible not to get fat in the foods you eat. Even if you decided to eliminate all products that are high in fat, you would still get fat in nuts and other seeds, including wheat germ.

It is important to remember that before trying any new fad diet to talk to your healthcare provider and find out if the diet is right for you **before** ever beginning.

The bottom line is BALANCE.

Shelley is a treatment educator at Babes Network in Seattle, Washington

MEDICARE AND MEDICAID UPDATE

A public forum to examine how changes in the Medicare program will impact those dependent on Medicare or Medicaid for their health care needs.

Sponsored by the Governor's Advisory Council on HIV/AIDS, together with the State Council on Aging.

Tuesday, May 11, 2004 Jackson Federal Building South Auditorium 915 Second Avenue Seattle, WA 9 am - 1 pm

Upcoming changes to Medicare will affect how tens of thousands of Washington residents access prescription drugs and medical care. While the biggest changes do not occur until January 2006, questions are already being asked about how these changes will affect the people of Washington state. To help answer the questions, the forum will present panels of state and federal health care officials, as well as health care providers, consumers, and insurers.

The public is invited to attend.

For more information, contact Lynn Johnigk at the Washington State Department of Health (360) 236-3444.

Clinical Trials at Swedish Medical Center

Swedish Medical Center HIV Research Studies

Protease Inhibitor Switch Study

Swedish Medical Center is looking for HIV+ people to participate in a research study that will replace Kaletra® with a currently marked protease inhibitor to see if it will improve cholesterol levels. To take part in this study, your current viral load must be <50 copies/mL. This is a 48-week trial that includes:

- Laboratory testing
- Physical Exams
- Some Medications
- Reimbursement for travel and childcare.

For more information please call Heather (206) -386-2820

HIV Study for multiply treated people who are failing their current regimen

Study Drug: An investigational protease inhibitor with a combination of other drugs.

Length: 48 weeks.

Study related lab tests, including genotyping and physical exams are free. The investigational drug is provided at no cost.

Reimbursement for childcare and transportation are possible. Will work around your schedule (evenings, weekends, etc.)

Please contact Janice for more details (206) -386-2523

Also: Tipranavir Early Access Program

A limited number of spaces in the Tipranavir early access program are available to persons with private providers and through the Madison Clinic. Patients must have a CD4 count ≤ 100 copies/mm³.

For more information please call Heather at (206) -386-2820

Studies at ACTU

The AIDS Clinical Trials Unit is looking for HIV negative male volunteers for study # 5191.

Study volunteers would help us further research on a new and investigational anti-HIV medication. Details are listed below.

We'll appreciate your passing this information on to others or referring those interested in participating in the study. **Study # 5191**

Safety & Drug Levels of an Investigational Anti-HIV Medication in HIV-Negative Men

Eligibility:

HIV negative Men age 18 to 55 years of age No medical illnesses or chronic medications

Study Treatment:

AMD11070 Investigational anti-HIV medication Groups 1 and 3: Single Dose Group 2: Multiple Doses

Length of Study:

16-20 daysIncludes a hospital stay at UW Medical Center1 1/2 days (single dose)5 days (multiple doses)

Reimbursement:

\$150 for 1 1/2 days visit Up to \$600 for 5 day visit \$20 for follow up visit

Call Joaquin V. Perez, Outreach Coordinator at the AIDS Clinical Trials Unit (206) 731-3497 for more information.

Do you know that Seattle Treatment Education Program gets over 33,000 hits a month on our Web site link to *thebody.com*? Curious? Visit us online at www.thebody.com/step/steppage.html

ACKNOWLEDGEMENTS

• Please note that this is not a complete list of all HIV-related treatment information. STEP strives to provide the very latest in HIV/AIDS treatment information, research and drug development information. The most current research directions and antiretroviral drug data are provided throughout the Ezine publications. You will find highlight reports as well as extensive follow-up reports from many of the AIDS research and science conferences on the Ezine. In addition, all STEP quarterly treatment journals are available on our Web site at http://www.thebody.com/step/steppage.html or by calling our National Talkline at 1-888-399-STEP (7837). STEP works hard to give unbiased treatment information to all interested parties. If you have comments, questions, suggestions or grievances, please contact step@lifelongaidsalliance.org.

The Ezine producer is Roberto Gonzalez

Special thanks to the following for contributing written material or editing this publication

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