

The Impact of Nutrition and Exercise on Quality of Life in HIV

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THE NUTRITION BOTTOM LINE

People with HIV need to maintain a consistent amount of food eaten, which helps to sustain lean body weight.

THE NUTRITION BOTTOM LINE

A balanced diet should include moderate protein and unprocessed whole grains, fruits, and vegetables and good sources of polyunsaturated fats.

THE PHYSICAL ACTIVITY BOTTOM LINE

A consistent and intense exercise program will help build and maintain muscle and some level of cardiovascular fitness.

THE PHYSICAL ACTIVITY BOTTOM LINE

A combination of weight training, cardiovascular conditioning, and stretching are components of a complete exercise program.

THE USE OF HAART

While HAART has proven to be a medication regimen that helps people live longer with HIV, these medications cause other problems.

THE USE OF HAART

HAART has been shown to cause oxidative stress related to mitochondrial dysfunction, hyperlipidemia, and lypodystrophy. Thus, among other things, the risk of heart disease is likely increased.

THE USE OF HAART

If plenty of fresh fruits and vegetables cannot be consumed, then supplementation of various antioxidants may be warranted.

THE USE OF HAART

Most of the available studies have investigated the status or effects of Vitamins A, C, E, and B₁₂, Selenium, and Zinc.

THE USE OF HAART

Research is needed to address the appropriate dosages of micronutrient supplementation among HIV-infected individuals at various stages of disease and treatment.

THE USE OF HAART

HIV itself and/or HAART have negative consequences for bone mineral density, thus investigating the role of supplementation may be warranted and also the importance of weight training/weight bearing activities should be emphasized.

WHAT ABOUT POPULAR HIGH-PROTEIN DIETS?

High-protein diets have been very popular in the US mass media for weight loss. This also fits with previous recommendations for AIDS patients to help prevent wasting.

WHAT ABOUT POPULAR HIGH-PROTEIN DIETS?

However, it is also known that eating a diet high in saturated fats and proteins increases the likelihood of heart disease, various forms of cancers, osteoporosis, and arthritis, among others.

WHAT ABOUT POPULAR HIGH-PROTEIN DIETS?

Thus, for someone who has HIV and is taking HAART, a high protein diet may further increase the risk of other diseases, especially heart disease. This question deserves credible research.

THE BEST DIETARY APPROACH

For anyone wanting to minimize the risk of other diseases, a focus should be placed on eating as many unprocessed and natural fruits, vegetables, grains, and legumes as possible.

THE BEST DIETARY APPROACH

To address protein requirements, many varieties of nuts, beans, grains, greens, and soy can be eaten, and can easily satisfy the body's daily needs. Food combining is not necessary.

THE BEST DIETARY APPROACH

Fish can be eaten, but should be minimized due to the high level of heavy metals and other industrial pollutants that are now so common in the oceans.

THE BEST DIETARY APPROACH

Other animal products, such as meats and dairy products, should not be consistently relied on as part of a healthy diet.

THE BEST DIETARY APPROACH

Recommendation #1

You should eat 5-10 servings of whole grains, such as brown rice instead of white rice, each day. Grains are “whole” if they are not refined, bleached, and exposed to chemicals. One serving is ½ cup of cooked or dry cereal, a slice of bread, or a cup of brown rice or whole grain pasta. Pay attention, because some of the processed and prepared foods are full of hidden sugars.

THE BEST DIETARY APPROACH

Recommendation #2

You should eat 4 or more servings of *vegetables* per day. One serving is 1 cup of raw or ½ cup of cooked vegetables. All vegetables are good to eat and the more variety eaten the greater the nutritional value.

THE BEST DIETARY APPROACH

Recommendation # 3

You should eat 4 servings of fruits per day. A serving of fruit is one medium fruit, $\frac{1}{2}$ cup of cooked fruit, or 4 ounces of fruit juice.

THE BEST DIETARY APPROACH

Recommendation # 4

You should eat 3 servings of *beans, nuts, or soy* foods per day to receive a large portion of the daily protein requirements. A serving is $\frac{1}{2}$ cup of cooked beans or nuts, 4 ounces of tofu, or 8 ounces of soy milk.

PHYSICAL ACTIVITY WILL...

- Relieve tension, help you relax, and sleep better
- Give you more energy
- Lower blood pressure
- Lower blood levels of LDL cholesterol
- Raise blood levels of HDL cholesterol

PHYSICAL ACTIVITY

Engage in at least 3.5 hours of physical activity per week, ideally spread over 3-5 days

- Activities that are *liked* should be picked to increase adherence.
- Exercising all muscles is very important.
- Choose moderate kinds of activity, like brisk walking.
- Work up to the goals *slowly* without experience in a regular exercise program.

WEIGHT TRAINING

Keeping muscles strong is very important, especially the muscles of the mid-section, legs, and shoulders.

Muscles get stronger with use, but will de-condition very rapidly.

WEIGHT TRAINING

Doing a few strengthening exercises each day is a good way to keep these muscles strong and healthy and is as important as cardiovascular activity.

WEIGHT TRAINING

You do not have to go to the gym to do many exercises, although the gym has a much better range of exercise options.

WEIGHT TRAINING

With some simple weights to hold in your hands, with an elastic band, or with the weight of your body, you can do some really helpful strengthening exercises.

STRETCHING

Before exercise, stretching should be done after a 5 to 10 minute warm-up.

Stretch at the conclusion of exercise will also help to reduce soreness.

Stretching can be done every day.

OTHER HEALTH AND WELLNESS FACTORS

Drink plenty of liquids, primarily water, to help your body metabolize medications that are being taken. Try to drink distilled or filtered water to minimize your level of contamination from industrial chemicals.

OTHER HEALTH AND WELLNESS FACTORS

Foods should be washed, prepared, and stored carefully to ensure that contamination is not a problem.

OTHER HEALTH AND WELLNESS FACTORS

Sleeping 6-8 hours per night is very important for regeneration.

OTHER HEALTH AND WELLNESS FACTORS

Stress reduction should be actively utilized when necessary.

OTHER HEALTH AND WELLNESS FACTORS

Nutritional supplements, including herbs, may be warranted, but be sure to get some expert advice.

Thank you for your attention