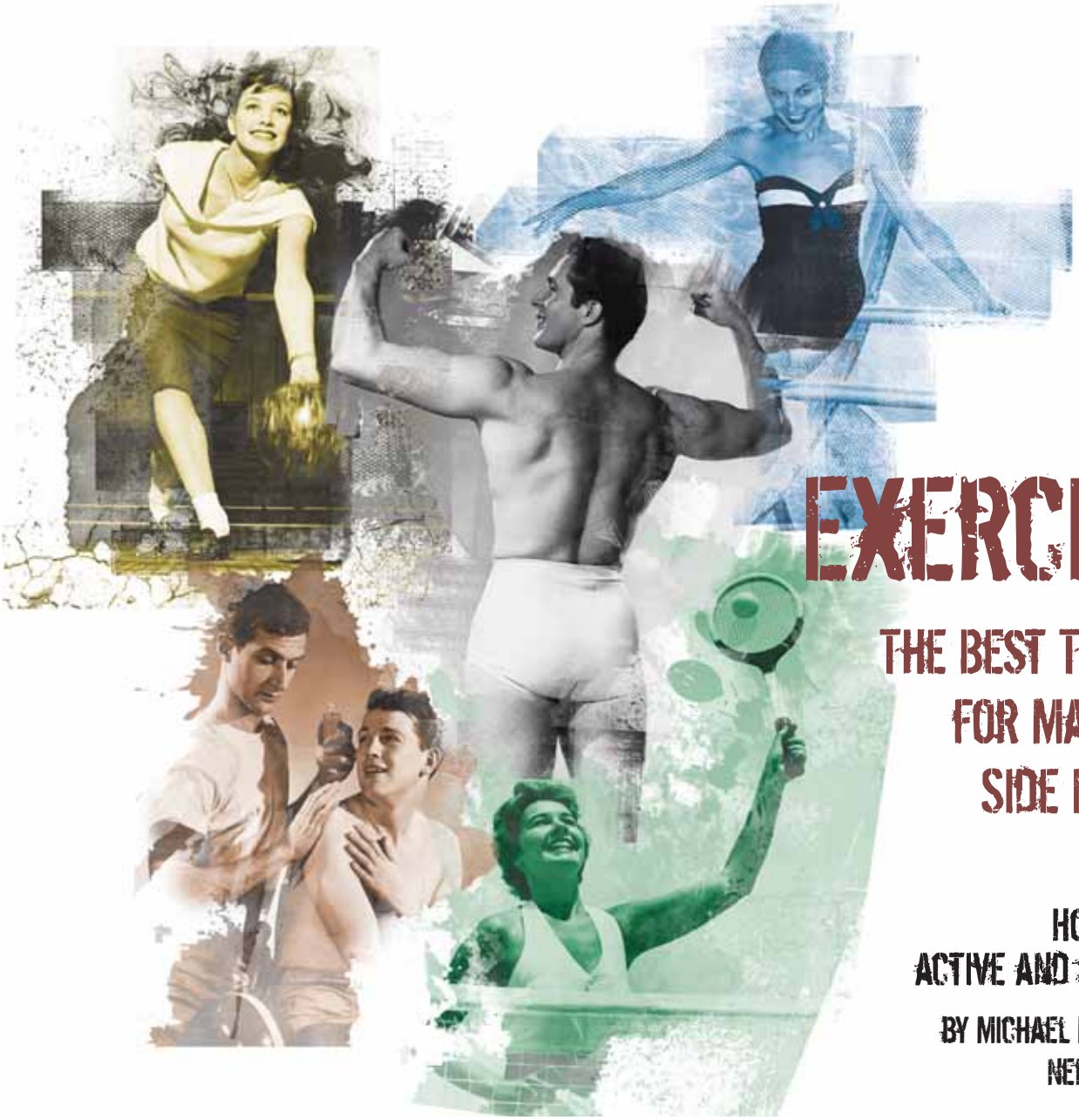

EXERCISE:

THE BEST THERAPY FOR MANAGING SIDE EFFECTS

HOW TO STAY ACTIVE AND ENERGETIC

BY MICHAEL MOONEY AND NELSON VERGEL

There are many benefits of exercise in HIV disease. Besides the evident improved self-image, energy level, and mental outlook, several research studies performed with HIV-positive people have found the following clinical benefits in body composition and metabolism.

Exercise produces improved muscle function, increased body dimensions and mass, and strength when used alone.[1, 2]

It may reduce trunk (belly) fat mass in patients with HIV lipodystrophy.[3]

It increases muscle mass and decreases LDL (bad cholesterol) when combined with testosterone in eugonadal men (men with normal testosterone) with wasting.[4]

It increases build-up of lean tissue and strength gain when combined with oxandrolone (Oxandrin, an oral anabolic) in eugonadal men with wasting.[5]

Muscle hypertrophy (enlargement), induced by resistance training, may decrease triglyceride levels in the blood of hypertriglyceridemic (those with high triglycerides), HIV-positive men being treated with antiviral therapy.[6]

Acute exercise does not have a deleterious effect on HIV replication in adults with high viral loads.[7]

Moderate physical activity may slow HIV disease progression.[8]

Exercise is associated with significant improvement in mood and overall distress, as well as a significant increase in body cell and lean body mass.[9]

Exercise can increase bone density in men and women.[10]

Testosterone and resistance exercise promote gains in body weight, muscle mass, muscle strength, and lean body mass in HIV-positive men experiencing weight loss and low testosterone levels.[11]

Exercise training resulted in a substantial improvement in aerobic function while immune indices were essentially unchanged. Quality of life markers improved significantly with exercise.[12]

Getting started

Before you start an exercise program, there are some things to consider. First, get your blood pressure, heart rate, weight, body dimensions, fasting cholesterol, triglycerides, and blood sugar measured. Your doctor should be able to advise you if you are capable of exercising without health

problems. Check these variables monthly if you can.

If you feel tired and weak, start walking every day to your best ability. Walking can help increase energy levels to enable you to start a more intensive exercise program later on when you're feeling better. Using a cheap pedometer to measure your daily steps is useful. Try to reach 10,000 steps a day since that has been associated with good cardiovascular health and fat loss.

There are two types of exercise: resistance (or weight) training and cardiovascular (or aerobic) exercise. Resistance training uses weights to induce muscle growth. Cardiovascular exercise improves the way your body uses oxygen and increases metabolism so that you can burn fat and lower bad cholesterol and blood sugar.

Do low-impact aerobic exercise three to four times a week. Exercising for 20–40 minutes by walking fast, bike riding, going up the stairs, using a stationary bike, elliptical trainer, or treadmill will increase your aerobic capacity, help to burn fat, and decrease cholesterol, triglycerides, and blood sugar. Jogging should only be an option if you have very strong joints and no problems with neuropathy. Do not do aerobic exercise if you are losing weight involuntarily or if you are tired or recovering from illness. Some people worry that cardiovascular (aerobic) exercise can increase fat wasting (lipoatrophy), but this fear is unfounded, in our opinion.

Recommendations

Train with weights and machines three times a week for one hour. Starting with machines is the safest way until you get familiar with the exercises. As you feel more confident and strong, bring in free weight exercise (hopefully with the help of a workout buddy). As you get stronger, increase your weights in every exercise. Exercise one body part per week, and do three exercises per body part. One light warm-up set and two heavier sets of eight to ten repetitions (to momentary muscular failure, meaning until you can not do another rep) are enough for each exercise. If you do not have access to a gym, do push ups on the floor and squats holding books or large bottles full of water at home. As long as you are "resisting" your own body weight, you are doing resistance exercise. You can also get an exercise ball and follow this great home-based workout: http://www.myfit.ca/exercisedatabase/search.asp?muscle=Home&equipment=yes.

For examples of other exercises you can do at home, visit http://weboflife.nasa.gov/exerciseandaging/chapter4_strength.html.

For great resistance exercises at the gym, visit: http://www.myfit.ca/exercisedatabase/weight_lifting_exercises.asp.

Important things to remember

- Learn how to do each exercise correctly and concentrate on using strict form to get the most out of exercise and prevent injuries.
- Make sure your muscles are warm before targeting them with more challenging weights. Warm them up with a light, high-repetition exercise set.
- Don't use your body to add momentum; cheating this way takes work away from the targeted muscles. Use a deliberate speed to increase the effectiveness of the movement.
- Use a full range of motion on all exercises. Feel the muscle stretch at the bottom and go for a momentary peak contraction at the top. Don't go too fast!
- Warm up before you work out and stretch afterwards to prevent injury. Briefly stretch the major muscle groups before your training. This helps flexibility and muscle recovery. For stretching routines, go to http://weboflife.nasa.gov/exerciseandaging/chapter4_stretching.html.
- Feel the muscles working by keeping your head in what you're doing. Focus on your muscles contracting and relaxing. Concentrate on your body exercising, not on thoughts or people around you.
- If the weight's too light (more than 12 repetitions), try using a heavier one with more resistance or do the movement more slowly and really feel the contraction. You should be barely able to finish the tenth rep if your weight is the right one. Of course, as you get stronger with time, increase your weights.
- Keep rest periods to no more than about 20-30 seconds, or shorter, depending on how tired you are from your last set. This will also help to give your heart a mini-workout.

IT'S EASIER TO STAY MOTIVATED WHEN YOU TRAIN WITH SOMEONE ELSE WHO HAS A VITAL INTEREST IN YOUR MUTUAL SUCCESS.

Safety first

Always remember—safety first! If something you do in an exercise hurts, stop! Ask for help to figure out what you're doing wrong. Maybe it's improper form. If you hurt yourself, you will hinder your progress because you won't want to work out! Learn proper form! Do not exercise if you feel you are coming down with a cold.

Commit yourself

If you can afford it, join a gym. If you spend the money, you'll be more likely to stay with it, and consistency is the key to success in any exercise program. Also, try to find someone who is enthusiastic to train with, or get a personal trainer (if you can afford one). It's easier to stay motivated when you train with someone else who has a vital interest in your mutual success. It's also safer to have someone to spot you when you lift heavy weight.

Avoid overtraining

Working out for more than an hour can cause overtraining that can destroy your muscles, decreasing your strength. Overtraining is probably the factor most ignored by exercise enthusiasts. In order to build muscle, the body has to receive a stimulus, a reason, to grow bigger, or hypertrophy. It's really very simple: the body only does what it needs to do, what it is required to do. It isn't going to suddenly expand its muscle mass because it anticipates needing more muscles. But if it is challenged to move weights around, it will respond by growing.

Another way to look at it is, if you take any bodybuilder and put him in bed for weeks at a time, he'll begin to rapidly lose muscle mass because the body will sense that it doesn't need the extra muscle any more. So, one needs to deliver the stimulus to begin muscular hypertrophy (growth) and that's what lifting weights does. However, overdoing exercise stresses out the body and initiates the process of actually breaking down muscle mass as the body begins to burn its own muscles to use for fuel. This is why so many people don't grow at a satisfying rate. Even worse, often times these people will think they aren't training hard enough, and *increase* their exercise routines, thinking they just need more stimuli! And this is where the biggest error is made—more is *not* necessarily better! It seems paradoxical that you could work out *less* and grow *more*, but this is very often the case. Therefore, *any* exercise beyond that which is the exact amount of stimulus necessary to induce optimal muscle growth is called overtraining.

A workout log is recommended

The best reason to keep track of your workouts is so you can see graphically what you are accomplishing, and analyze your pattern to see if you're overtraining. You will also be able to see whether you're gaining strength at a reasonable rate. You will find when you log your workouts, that if you are overtraining, you won't be gaining in strength or muscle size. So document your workouts by keeping track of the weight you lift and the amount of reps you lift for each exercise, and then when you go in to train again the next week, you'll know what you are trying to improve upon. If you find out that you're weaker than you were the time before, and everything else like nutrition, etc. is in line, you may be training too often. For downloading workout logs, visit http://www.exrx.net/WeightTraining/WorkoutLogs.html.

Food and hydration

Drink at least eight glasses of water a day to keep hydrated. Dehydration can rob you of energy for your workouts. Drink plenty of water while working out and avoid sugary drinks, since they will cause fatigue after an initial burst of energy. Some people like to drink green tea or creatine in juice before a workout to help increase energy levels through a workout.

A light carbohydrate meal (fruits, carbohydrate drinks, etc.) before a workout and a protein-rich one afterwards is advisable. Keep yourself well hydrated with plenty of water throughout the workout. And get plenty of rest afterwards.

Do not work out after eating a regular meal. Wait at least two hours. If you need a snack, have some fruit and a slice of toast with peanut butter one hour or more before working out. Do not consume protein shakes before working out (leave them for after the workout). Digestion will slow down your workouts and bring your energy down. Within 30-60 minutes after the workout, feed your muscles with a balanced meal containing protein, good fats (olive oil, flaxseed oil), and complex carbohydrates, like fruits and whole grains.

Supplements like glutamine, creatine, and whey protein may be a good thing to consider. A shake containing one heaping tablespoon of glutamine, two tablespoons of flaxseed oil, one or two scoops of whey protein, fruit, and milk (if you are not lactose intolerant, otherwise almond or rice milk, though not soy, since it has been shown to increase estrogen in both men and women), provides a good balanced meal after a workout.

Resources

Two of the best websites for video clips of exercises and an explanation of anatomy are: http://www.exrx.net/Lists/Directory.html and http://www.myfit.ca.

Also, several exercise routines are provided on our website, http://medibolics.com/exercise.html.

You can also find most exercise routines explained in videos on youtube.com and menshealth.com.

Be sure to read Michael's and Nelson's book, *Built To Survive*. For more valuable information, go to powerusa.org.

Nelson Vergel, a native of Venezuela, is a 26-year HIV survivor and advocate for wellness in HIV disease. He is the founding director of the Program for Wellness Restoration (PoWeR), the Body Positive Wellness Clinic in Houston, a founding member of the AIDS Treatment Activists Coalition (atacusa.org), founder/moderator of the largest online HIV health support group (pozhealth at yahoogroups.com), an international speaker, an expert on nutrition and complementary therapies at TheBody.com, and the co-author of the book Built To Survive. *Most recently, Nelson was selected to be a member of the U.S. Department of Health and Human Services HIV Guidelines Panel. For more information about Nelson and his programs, please visit www.powerusa.org.*

Michael Mooney is a long-time medical researcher who co-authored "Built To Survive." *He was a columnist for Muscle Media for two years, has been interviewed in Sports Illustrated, quoted on ABC's Good Morning America and is Director of Education at SuperNutrition, a best-selling vitamin line. Michael's unique approaches to building bodies will be documented in an exercise video soon. Learn more about Michael's research by visiting his website www.michaelmooney.net.*

References available online at www.positivelyaware.com.