

ARTICLE FIVE

STRESS, EXERCISE, AND WEIGHT GAIN

Probably no single physical discipline of life can reduce the “uptight feelings” of stress more than a regular exercise routine. Moderate exercise releases endorphins (natural pain relievers), which produce a sense of well-being. Stressful situations produce adrenalin and other stress hormones, which are metabolized during exercise.

You certainly don’t need to be an athlete to benefit from exercise. In fact, highly stressed people who are also competitive in their exercise will see very little stress-relieving benefit from their exercise. The reason is simple. When they are “pushing” to win, they are placing their body in “emergency mode” and producing more adrenalin.

Here are some things to keep in mind as you start an exercise program.

1. Find an exercise you enjoy—walking, tennis, jogging, cycling, swimming, etc.
2. See your physician for a complete checkup before initiating any strenuous activity—especially if you have health problems or are over fifty.
3. If possible, exercise with a partner and exercise in the morning. Both will increase the likelihood that you will stay with your routine.
4. Strive to achieve aerobic benefit from your exercise. That is accomplished when your heart rate is within established minimum and maximum target zones. There are two ways to know if you are in the right zone.

Method 1—Calculate your minimum and maximum target zones for your heart rate with these formulas:

Minimum target rate: $220 \text{ minus } [\text{your age}] = \text{_____} \times .65 = [\text{min. target heart rate}]$

Example for a forty-year-old person: $220 - 40 \text{ years old} = 180 \times .65 = 117$

Maximum target rate: $220 \text{ minus } [\text{your age}] = \text{_____} \times .80 = [\text{max. target heart rate}]$

Example for a forty-year-old person: $220 - 40 \text{ years old} = 180 \times .80 = 144$

Method 2—A less precise but helpful way to tell if you are working out hard enough is to make sure that you work until you begin to perspire but not so hard that you cannot carry on a conversation with your exercise partner.

Choose an aerobic exercise routine that will eventually allow you to keep your heart beating between your minimum and maximum targets for at least twenty minutes three times a week. Always stretch and warm up before exercising and cool down by exercising slowly for about five minutes before stopping your exercise altogether.

It normally takes six to twelve weeks to achieve a comfortable and profitable discipline of exercise. Your exercise program does not have to be complicated or expensive. A good pair of walking shoes is all you need.

5. Basic Walking Program—If you are not exercising at all, a simple walking program is a good way to get started. Start with a moderate five-minute walk, then walk briskly for five minutes, and finally, cool down with a moderate five-minute walk. Follow this routine for three days in your first week. The total time, of course, is fifteen minutes each time.

Each week thereafter add two minutes to the brisk walk segment. Keep the beginning and ending walks to five minutes. By week twelve you will be exercising forty minutes three times a week—five-minute walk, thirty-minute brisk walk, five-minute walk. If the next week’s routine seems to be too much for you, continue on your present week’s routine.

Once you are walking five minutes, briskly walking thirty minutes, and cooling off by a five-minute walk (week twelve), you are in good shape to begin exercising within your target heart

rate. From that time on, exercise three or four times a week keeping your heart rate within your target zone during the brisk walking times for thirty to sixty minutes each time.

STRESS AND WEIGHT GAIN

One of the stress hormones, cortisol, seems to be linked to weight gain. Cortisol, a natural steroid, has many wonderful functions in the body. During times of short-term pressure, it activates the autoimmune system to take care of any damage to the body during the “fight or flight” response. It also elevates blood sugar, cholesterol, and blood pressure for the same reason. Cortisol makes sugars, fats, and amino acids readily available to the body in order to produce energy for the crisis. “In the liver, cortisol stimulates the breakdown of glycogen into glucose. In the adipose tissue (where we store body fat), fatty acids are released to cortisol stimulation (fat breakdown?—sounds good—but the longer-term effect is fat gain). In the skeletal muscles, cortisol promotes the release of amino acids, which are either used directly by the muscle for energy or sent to the liver for conversion into glucose.”¹³

Cortisol is a component in the body’s alarm mechanisms to get the body geared up for the perceived emergency. It has many functions, one of which is to regulate how fuel is stored in the body. When cortisol is high, appetite increases, and sugar and fat levels in the blood stream stay high. This is why patients taking cortisone for inflammatory conditions typically gain weight. The rise in cortisol in the bloodstream activates the fat storage mechanisms—typically in the abdomen, where the fat is more readily available to burn in the “fight or flight” stress response.

When there is no physical “fight or flight” that takes place, the patient is stewing in his juices in traffic snarls or worrying about her troubles, and the fat continues to be stored no matter what kind of diet he or she is on.

This is why moderate exercise as described above is so crucial to weight loss particularly for worriers, who must also work on reversing “The Way Down” process. When coupled with physical relaxation and breathing exercises and meditation upon God’s Word, exercise is one of the most effective ways to lose weight. Exercise, relaxation, and meditation are necessary because trying to lose weight with high cortisol levels is like trying to sleep with high adrenalin levels. These stress hormones are activating the body to do just the opposite of what the person really wants to do at the moment.

Once again, we see how God intended for these wonderful endocrine functions to be servants to our hearts but how they can turn against us when chronically activated by disease or wrongly handled pressure. As you have heard before, “Stress hormones are wonderful friends in a genuine crisis but are deadly foes as a way of life.”

¹³Shawn Talbott, PhD. *The Cortisol Connection* (Alameda, CA: Hunter House Publishers, 2002), 8.