

GENERAL INFORMATION FOR POLIO SURVIVORS

by Dr. Jaquelin Perry

The basic problem is that poliomyelitis destroyed some of the muscle fibers and thus the remaining musculature has had to function at a higher demand than normal. As a result, the muscles are wearing out earlier.

Qualitative measurements of different grades of paralysis demonstrated that our manual muscle tests have overestimated the amount of recovery.

The post-polio "normal" strength is at least 25% less than true normal and may even lack 40%. Similarly, the group graded "good" is only 40% of normal. These strengths are still adequate for a person to carry on customary activities in normal fashion but at a demand that is twice the usual intensity. Hence muscles have been experiencing strain over all the years with gradual accumulations of stress.

The abrupt loss in the ability to function relates to two phenomena. First, all our physiological systems have a buffer zone that makes them able to accept strain for a considerable length of time without showing a frank loss. Once one exceeds the buffer limit, the loss is very prominent. Second, activity such as walking or lifting objects presents fixed mechanical demands. As long as one's muscle strength exceeds that demand even by 2% or 3%, a person can continue to perform in a usual manner, but if the strength goes below the essential limit-- suddenly that function is lost.

The answer is redesigning one's lifestyle to avoid those activities that cause muscle strain, cramping, persistent fatigue, and, consequently, weakening.

Once the strain has been reduced, then cautious exercise may be of value. Do not take on the exercises, however, until a lifestyle that avoids the strain has been worked out. Also, if they cause any pain, persistent fatigue, or increased weakness, **STOP**. This means just the mechanics of living are sufficient exercise for your muscles.

At the 1984 Warm Springs Research and Scientific Symposium on the Late Effects of Polio, Dr. David Bodian reported on the intensive polio research he did in 1945. He found that the poliovirus disappeared from the system in 3 weeks. Thus, there is nothing in the tissues to cause a second bout of polio. This again confirms the interpretation that today's problems are chronic strain of muscles whose strength was overestimated.

The advantage of having had poliomyelitis rather than some other disability is that it allowed one to resume very active and profitable lives for many years. Now it is necessary to recognize that excessive strain is being experienced and that lifestyles must be changed to accommodate this situation.

MEDICAL CONSIDERATIONS FOR EXERCISE

Dr. Jaquelin Perry (with Ranchos Los Amigos Medical Center), unlike some doctors who ban all exercise for a person experiencing Post-Polio Syndrome (PPS), recommends exercise of the rest of the body. Remember, such exercise must be done with planning and common sense.

Here are some basic guidelines from Richard Simmon's book "Reach For Fitness".

DON'T exercise polio affected muscles. Any stress to these now overworked muscles can cause a great deal of harm.

DON'T practice stretching exercises until you have had a clinical evaluation from your physician or physical therapist. Sometimes muscle tightness can be a substitute for a lack of direct muscle strength. (It's another way your body has compensated for muscle weakness.) Stretching these muscles can undo such a benefit, and as a result, you would have less function than you did before the exercise. The clinical evaluation will determine if the tightness you feel is of an obstructive or beneficial variety.

DON'T use any exercise (or equipment) that is intended to powerbuild or strengthen your muscles. Some examples of strengthening exercises are using weights, aerobics, jogging, and even just doing exercises that require you to lift your body weight when your muscles are too weak to do it spontaneously. Dr Perry suggested that you do only those exercises and activities that can be done without discomfort. The athlete's philosophy of "no pain, no gain" is totally inappropriate if you already have a disability or a high sensitivity to strain. She said that even athletes later pay penalties for joint and muscle damage done in the name of sport.

DON'T give up exercise completely.

DO, DO, DO exercise the rest of your body. Those muscles that were not affected by the disease and your cardiovascular/pulmonary system (your heart and lungs) need normal daily exercise if you are to keep in top condition

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