

POLIO NETWORK NEWS

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Becoming an Intelligent Consumer of Physical Therapy Services

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In the nearly ten years that I have been treating polio survivors, I have found that the people who come to my door for assistance usually fall into one of two categories. Some of these people have not had contact with a physical therapist (P.T.) since their acute phase of polio. Others have become frustrated and often seriously depressed after seeing several P.T.'s and several physicians prior to coming to see me. They could not find someone knowledgeable about the late effects of polio and how physical therapy can adequately assist survivors in coping with these late effects.

It is my hope in this document to provide a two-fold service:

♦ I wish to describe the evaluation and treatment that a knowledgeable, skilled P.T. should be able to provide a polio survivor. By so doing, I hope to significantly reduce the frequency with which polio survivors are turned away from physical therapy clinics with the statement, "There's nothing we can do for you."

♦ I would also like to give encouragement to survivors who have not yet found a P.T. who has been knowledgeable about meeting their needs. Hopefully you can go armed with the data in this article to request that certain services be performed.

Certainly many health professionals other than P.T.'s can help to lessen the impact of the late effects of polio. In some cases, the services of other professionals overlap those of the P.T. However, in this paper I will confine my comments primarily to P.T. services.

This paper is based on principles in the resources listed on the accompanying bibliography.* Some of the following concepts listed under "STRENGTHS" are derived from my own experience in treating polio survivors.

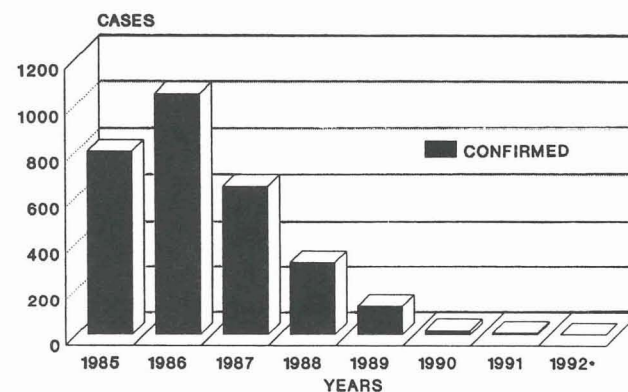
*The bibliography will be made available in the next *Polio Network News*.

One Year without Polio in the Region of the Americas

August 23, 1992 marked the first year that the Region of the Americas has been free of wild polio-virus. The last detected case occurred in Junin, Peru on August 23, 1991.

This achievement has been possible thanks to the eradication campaign launched by the Director of the Pan American Health Organization (PAHO), Dr. Carlyle Guerra de Macedo, in May of 1985. The principal strategies used were the National Vaccination Days with applications of poliomyelitis oral vaccine and the intensified surveillance of reported cases of flaccid paralysis. These efforts succeeded in reducing the number of polio cases caused by wild virus from approximately 1,000 reported cases in 1986 to nine in 1991 (eight in Colombia and one in Peru). Since the virus was isolated from the Peruvian case, no other wild virus has been isolated in the Region (Figure 1).

Figure 1. Confirmed cases of polio in the Region of the Americas, 1986-1992



* Information for 1992 through week 34

** Source: PESS/PAHO

At the inception of the Expanded Program on Immunization in 1978, less than 25% of the children in the Region of the Americas were vaccinated against the principal childhood diseases (polio, measles, diphtheria, tetanus, pertussis, and tuberculosis). By 1991, the overall coverage extended to over 75% of the population under one year of age.

Why should you consider seeing a P.T.?

- ◆ One excellent reason for seeing a P.T. in the absence of declining physical function is to undergo a well-rounded baseline evaluation against which future problems might be measured.
- ◆ Individuals who have not experienced recent functional decline may seek the services of a P.T., so that they may be educated in ways to minimize the effects of their polio problems on their bodies. For example, a P.T. can set up a muscle-specific exercise program that can be used to normalize (to the extent that is possible) the biomechanic forces acting on the body. A P.T. can also serve to educate a person in lifestyle modifications that may make it easier for a person to function in daily life and may also help slow the progression of symptoms in the future. The P.T. may also recommend the use of certain appliances during activities of daily living (A.D.L.) that might make it easier for a person to function.
- ◆ Finally, the most common reason for polio survivors to seek the services of a P.T. is because they have noticed pain or functional decline in strength, flexibility, endurance, ability to walk, climb stairs, etc. Physicians must rule out the possibility that conditions other than polio are responsible for problems such as these. However, it is the P.T. who has special skills to implement programs to address the symptoms noted above.

How does one obtain access to a P.T.?

In some states, physical therapists are permitted to evaluate, or to evaluate and treat patients without referrals from physicians. In other states, referrals from physicians are required by law. In either case, almost always a referral from a physician to a physical therapist is needed for third party payers (insurance companies) to cover physical therapy services.

For people who live in relatively close proximity to one of the established post-polio clinics around the country, evaluation by a physician at one of these clinics is certainly ideal. A physician from one of these clinics can write a referral for physical therapy. However, if polio survivors do not live in close proximity to one of these established post-polio clinics or must wait a long time to obtain an appointment at such clinics, referrals to physical therapy in their

own locale from their family physicians can certainly be appropriate.

Family physicians are sometimes hesitant to write physical therapy prescriptions because of lack of knowledge about polio or about specific instructions to write on the referral. However, all states accept simply-written referrals such as "physical therapy to evaluate and treat." A diagnosis must be written on the referral. If a physician feels comfortable making the diagnosis of the "late effects of polio," this should be written on the referral. Otherwise descriptive diagnoses such as, "postural dysfunction," "back pain," "gait disturbance," or "muscle weakness" may be listed.

Specialists such as physical medicine specialists, orthopedists, or neurologists may prefer to write more specific instructions on the physical therapy referral. Hopefully, however, they have a good rapport with the P.T. with whom they are going to refer, and they will trust them enough to also write "evaluate and treat" on the referral in addition to their specific instructions. This allows the P.T. to use his/her expertise fully to address the patient's problems.

Choosing a P.T.

If you live near a physical therapist who is listed in the directory published by **International Polio Network**, of course attempting to obtain services from such a person would be optimal. If you do not live in close proximity to a P.T. listed in the directory, I suggest that you look in the *Yellow Pages* in a phone book under "PHYSICAL THERAPY" and call several offices in your area to determine if anyone is knowledgeable in any way about the late effects of polio. Most hospitals will also have the capacity to treat outpatients, and you may also consider calling a hospital physical therapy department.

If you are unable to find a physical therapist in your vicinity who has any knowledge of treatment of the late effects of polio, my next suggestion is that you inquire if there is anyone who is willing to learn about this problem. If you sense that a P.T. has a willingness to learn about the late effects of polio, share any polio-related information you have access to and share the information contained in this article with him/her. Then request that an evaluation be conducted and a program implemented based on this or similar information. You may also direct P.T.'s to an article in the October, 1991, issue of *Physical Therapy* magazine by Elizabeth Dean, P.T., entitled, "Clinical Decision Making in the Management of the Late Sequelae of Poliomyelitis."

Reasonable Expectations

Nearly every polio survivor comes to health care providers initially with the hope — whether clearly evident or secretly buried — that someone will be able to “make me as I was.” Because of this hope, some survivors are initially reluctant to hear about suggestions a P.T. may make regarding lifestyle modifications, equipment options, etc. Often, polio survivors consider accepting changes such as these as an act of “giving up.”

I would encourage survivors to consider that the only true act of “giving up” is refusing to participate in activities and retreating from society. Any suggestions for changes in lifestyle or use of equipment should be viewed as suggestions for how to “get on with life,” and survivors should attempt to look at these suggestions as a means of continuing their participation in society to the fullest extent possible.

Reasonable goals that *may* be possible to achieve via physical therapy intervention can include the following. However, the survivor and P.T. should work together to choose which goals should be worked on at any given time.

- ♦ pain reduction
- ♦ edema reduction
- ♦ improved skin integrity
- ♦ improved endurance for activity
- ♦ improved flexibility
- ♦ improved ability to move in bed/transfer
- ♦ stabilization of balance/gait
- ♦ possible reduction of rate of strength loss and improved ability to use existing strength

Polio survivors should recognize that their bodies may be especially sensitive to even subtle changes. Sometimes small interventions may result in huge positive benefits. For example, the provision of 1/4-inch internal heel lift in one shoe may be enough to greatly minimize low back pain.

Other times small interventions may result in negative outcomes. For example, if the therapist would recommend providing a low back support to stabilize the pelvis and minimize back pain, the patient's ability to use the pelvis to assist with certain phases of the walking cycle might be impaired. Therefore, the survivor must be able to communicate fully any negative results that occur when interventions are implemented.

What is the moral of this story? Survivors should attempt to be flexible and should attempt to look upon recommendations made with an open mind. However, survivors should also recognize that several interventions may need to be tried before one might be found that is beneficial.

What should you expect in a physical therapy evaluation, and how should the results be incorporated into treatment?

♦ COMPREHENSIVENESS

In physical therapy school, students are taught all the components of the following type of evaluation. They are instructed to complete all of the components of the following evaluation on any body part that is affected by problems that the patient is being sent to physical therapy for.

Because polio is a systemic disease that initially invades the body from head to toe, polio survivors are at risk for dysfunction of multiple body parts. Therefore it follows that all these components of a physical therapy evaluation should be performed on all body parts for polio survivors. Comprehensive evaluations of this type can take as long as three to four hours

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Becoming an Intelligent Consumer

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spread out over three to four visits. (I am aware that some P.T. departments are not set up to allow this much time per patient. This may be another factor in your decision as to which P.T. to choose.)

Most polio survivors envision that certain of their body parts were minimally or not at all affected by polio. However, I think it is very helpful to survivors when a P.T. can evaluate the whole body and possibly confirm that certain body parts were relatively spared from dysfunction. Conversely, the P.T. may point out to survivors that certain body parts have been affected perhaps more than they thought. If this is the case, measures can be taken to minimize the effect of abnormalities.

After an evaluation such as that described below, the P.T. should sit down with the survivor (and family or other significant people, if the survivor so desires) to explain the results. A thorough explanation with a proposal of treatment options can take up to an hour. The survivor and others in attendance should be encouraged to ask questions they may have regarding the results and the proposed treatment options. The survivor should then decide which option to pursue.

The therapist should compose a report detailing the specifics of the evaluation and the therapist's recommendations for approval by the referring physician. The therapist should work in conjunction with the physician to implement a program based on the results of the evaluation.

♦ INTERVIEW PRIOR TO PHYSICAL ASSESSMENT

What is the survivor's complete medical history?

What is the survivor's vocational social history?

What is the survivor's perception of function in each major body part?

Has any decline of function occurred in recent years?
Are there symptomatic areas of pain?

Are there body parts at circulatory risk, i.e., is there cold intolerance, presence of swelling, discoloration of skin, etc.?

Are there any problems with sleeping?

Are there any problems with breathing or swallowing?

What activities are common for the survivor on a regular basis?

How is endurance for activities?

How accessible is the survivor's home?

How are the survivor's abilities to move in bed, get up and down from a chair, or to walk?

Does the survivor use any special equipment? (i.e., braces, crutches, canes, wheelchairs, feeding devices, breathing devices, etc.) Have these devices changed in recent years? Are there any problems using the current equipment?

♦ CARDIOPULMONARY

EVALUATION. The components of a basic cardiopulmonary evaluation should be under consideration throughout the physical assessment. The survivor's resting blood pressure, heart rate, and respiratory rate should be evaluated. Some description should be made of the survivor's ability to adequately oxygenate each lung lobe and of the survivor's ability to cough and breathe deeply. In conjunction with coughing and deep breathing, a description of the use of abdominal muscles and chest muscles for forces should be included. The P.T. should also describe any abnormal use of the neck or chest muscles for breathing purposes.

During the rest of the physical evaluation, repeat measurements of the resting heart rate, blood pressures, and respiratory rate and quality should be periodically recorded to let the therapist, survivor, and attending physician know how the survivor responds to mild activity such as is conducted during a physical assessment.

Some P.T.'s have the kind of equipment to give the survivor a modified aerobic exercise test using a treadmill or a stationary arm or leg cycle. (Of course, if the survivor has a history of heart or lung disease, it is not wise to do a test of this kind without proper cardiopulmonary monitoring in an office with access to a physician.) An eight- to 12-minute test of this type may be performed to determine how the survivor responds to this kind of more vigorous, sustained activity, as compared to the intermittent, lower-level activity performed in the rest of the evaluation.

A word of caution here is that performing a sustained aerobic activity before knowing the survivor's true strength as noted below under "STRENGTH TESTING" could be hazardous. Survivors can overexert themselves in the cardiopulmonary testing and suffer pain, muscle tremors, or temporarily increased muscle weakness as a result afterwards.

TREATMENT. If cardiopulmonary abnormalities are found in the evaluation, vital signs should be monitored during any treatment involving exercise. Almost all polio survivors will show a generalized deconditioned cardiopulmonary response to exercise. They can benefit from instruction in work simplification techniques, energy conservation techniques, body mechanics, etc., to reduce their daily cardiopulmonary demands.

All polio survivors, even in the absence of true lung function impairment, can benefit from instruction in abdominal-diaphragmatic and segmental breathing.

Many survivors have trunk abdominal weakness that results in binding down of the soft tissues of the body, making it difficult to move the chest wall well during breathing. Proper breathing techniques can help address these problems. Survivors who have postural problems that impair oxygen flow will also be helped by using these techniques. Finally, normalizing respirations is known to reflexively activate the part of the nervous system that promotes bodily relaxation.

Of course, for survivors who do have true respiratory impairment, learning all the above can be potentially life-saving or life-prolonging. These survivors should also learn assisted coughing techniques.

◆ FLEXIBILITY TESTING

EVALUATION. Flexibility testing refers to how far into a given movement a person can move a body part. In medical jargon, this is referred to as range of motion (ROM). ROM tests should be performed of all joints in all places. These measurements should be taken accurately with an instrument called a goniometer, which is a standard piece of equipment in all physical therapy departments. (A goniometer is a device similar to a protractor with arms on it that can measure precisely in degrees, the amount of movement present at any joint in any plane.) Simply "eyeballing" the available movement at the joints is not acceptable.

There are many texts that cite "normal" values for ROM at each joint in all planes. These various sources disagree on what "normal" is. P.T.'s should define whatever values they have chosen to use as representative of "normal," in light of whether or not the chosen values are at the upper end or at the lower end of those noted in the available resources.

In interpreting ROM values, the P.T. should show survivors a ratio of their values over the value that the therapist is considering normal. For example, if the normal ROM that the P.T. is considering for straight leg raising is 80 degrees and the survivor's ROM is 60 degrees, the ROM should be expressed at 60/80. This is helpful so that both the survivor and the therapist are aware that the survivor has a 25% deficit in flexibility.

TREATMENT. The importance of adequate flexibility in all patients, but especially in polio survivors, cannot be overstressed. It is well-documented by people active in the acute phase of polio treatment during the epidemics earlier in this century (Sister Kenny and current lecturer Dr. Thomas P. Anderson, for example), that muscles affected by polio easily become "stiff," and must undergo continual stretching to maintain adequate flexibility. Without adequate flexibility, it becomes very difficult for a person to use whatever strength is available in that body part. Poor flexibility can also cause pain and deformity. Too much flexibility on the other hand can cause what

Florence Kendall refers to as "stretch weakness." This, too, makes it difficult to use the available strength.

In general, I have always used the "normal" values as a firm target to shoot for in most people to assure as normal a biomechanic force at a joint as possible. Surgeries, arthritis, or bony deformities may impair a person's ability to achieve "normal" ROM. However a good passive stretching program performed by a friend or family member goes a long way toward minimizing pain and normalizing movement patterns. Self-stretching is usually difficult to perform due to pain, weakness, and substitution patterns.

In certain cases amongst polio survivors, some degree of "tightness" in certain muscles may assist function. For example, in a patient with weak forearm and finger muscles, a certain degree of tightness selectively permitted in these muscle groups can allow the patient to have the appearance of more "strength" than he/she would otherwise have. Another example might be if a patient has weak knee extensor muscles and weak buttock muscles, a certain amount of tightness in the inner aspect of the thigh may make it easier for the patient to use the available strength in the thigh. However, these examples are quite variable and extremely dependent on all the symptoms that present in a given patient. Only a well-trained therapist can discern, in conjunction with the patient's physician, if certain areas of selected tightness might be adaptive for a particular person.

The conclusion of this article by Marianne T. Weiss, P.T. will be published in Vol. 9, No. 2, Polio Network News.

Medigap Policy Choices

New Federal Medigap policy requirements became effective July 30, 1992. As a result, Medicare's 35.5 million beneficiaries may choose to supplement their Medicare insurance with one of the newly available Medigap policies with standardized benefits and simplified wording. Under the new requirements, every Medigap policy must offer basic benefits. The new law does not require that beneficiaries buy one of the standardized policies. If you have a policy you're satisfied with, and it is guaranteed renewable, there is no need to change.

More information about the new standardized plans is available in the HCFA-NAIC publication, Guide to Health Insurance for People with Medicare. Single copies may be ordered free of charge from the Consumer Information Center, Pueblo, Colorado 81009. Specify the title and publication number 518-Y.

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