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Annual membership fee: (Jan.- Dec.)
\$10 Single; \$15 family \$ _____
My donation to Polio Regina Inc.: *\$ _____
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Please make cheque payable to: **Polio Regina Inc.** and mail this application form
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Polio Regina Inc., 825 McDonald St., Regina, Sk. S4N 2X5

(Official receipt of donation for income tax purposes will be mailed.)



Christman Edition
November 2003

Editors: Blenda &
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Editors' Notes

Surfing the net with you in mind

It's always fascinating and enjoyable to surf the net looking for stuff that will interest our Polio Regina group. There are so many plums just waiting to be plucked! The newly formed; Polio Canada, www.poliocanada.com is a tremendous source of information garnered from the different polio groups across Canada.

Then we get a regular e-mail from Barbara Goldstein: <http://home.iag.net/~bgold> Florida East Coast PPSG. It's always a great site to visit. The articles "Fear Factor" and "The Magic Food" are partial reprints from that website.

Locally, Polio Regina enjoyed a great year with "near capacity" attendance at our meetings and tremendous information from our guest speakers. Our public exposure in March (Polio Awareness Month) was highly

successful and since then we've had umpteen phone calls for information and have sent information packages to 20 people.

Our most successful recruiting method is for you, as a member of Polio Regina, to call someone that you know had polio and invite them to join our organization. Call today. You will be doing your friend a great favour.

Our weekly swim at the Wascana Rehab Centre is well attended – but we need more swimmers. Christmas is coming - really! – so get your tickets for our annual dinner, door prize draw and live entertainment.



Season's Greetings to you all.

The following is a paid advertisement.

Meet and greet: Carole “Bubbie” Einfeld

Carole Einfeld was about seven years old when she was struck down with Polio that caused her legs to become totally paralysed for several months. Prior to that she had an extreme case of the measles, resulting in damage to her hearing.

The family lived on a farm at Arborg, Manitoba and coping with her illnesses presented problems resulting in lack of understanding and abuse from her step-father. The family didn't know about polio until her older brother learned about it at school.

Slowly, Carole recovered with a lot of spirit and determination and resumed her education. She attended high school and even had a summer job at a bakery at Victoria Beach, Manitoba and lived as part of the family. She earned a whopping salary of \$12 a week, putting in 10-hours of work per day. On her one day off a week, she loved to do the laundry for herself and the rest of the staff. She had completed her high school education and the money she earned was spent on clothing and other personal items.

Life was great ! – until she returned home and the abuse by her step-father persisted and very often she lived with the baker's family and, in due course, married the baker's son.

“I was married at 18 years old, gave birth to a boy, then by the time I was 22 years old, I had another baby- a cute little baby girl”. Unfortunately, alcohol and abuse became part of that relationship which ended in divorce.



Unfortunately, resistance to self-care is typical of polio survivors who have been found in all three of our Post-Polio Surveys to be more Type A —pressured, driven, time-conscious, perfectionistic and over-achieving —than those who have already had heart attacks. Regardless of the severity of their paralysis, polio survivors marry and go to college at a higher rate than the non-disabled population. Polio survivors also work more hours of overtime and take fewer sick days than non-disabled workers.

The Post-Polio Personality

Why are polio survivors such over-achievers, so Type A?

Polio was the great plague of the middle of this century. Those who contracted polio, often as children and adolescents, were the AIDS kids of their generation.

“Those with acute polio were ripped away from their families for months or years and admitted to rehabilitation hospitals where they underwent multiple surgeries and draconian physical therapy,” says Nancy Frick, of Harvest Center in Hackensack, New Jersey. Frick performed the 1995 International Post-Polio Survey, and documented that kids who had polio were verbally abused, slapped or even beaten by therapists or family members to “motivate” them to walk.

“They were told to ‘use it or lose it;” says Frick. “Polio survivors discarded their braces, crutches and wheelchairs and became Type A super achievers to stop the abuse by looking and acting ‘normal.’”

Unfortunately, it appears that, as a group, they went beyond mere normalcy. Says Frick, “Polio survivors’ abandonment of assistive devices and Type A drive put extraordinary strain on their few remaining poliovirus-damaged neurons, triggered their function decline and causes them to fear doing anything today that will make them look “crippled” again and thereby subject to more abuse.”

Good News

The good news is that a team approach to treating PPS—combining occupational, physical and speech therapy, Type A behavior modification and psychotherapy is very effective in helping polio survivors deal with the emotional and physical abuse

“Our first group of 20 nurses completed a three-week orientation and training program on July 24,” says Velda Clark, Health Line’s Director. They bring their years of collective wisdom and life experiences to the project. Nurses are pleased to have a chance to help the community and enthusiasm is high about joining a new team.”

Here’s how Health Line works:

When people call, nurses identify the service and ask if the call is about an emergency situation. If so, they ask the caller to hang up and call 9-1-1. In some circumstances, if the person is unable to hang up, the call will be transferred directly to 9-1-1, the number to call in the event of an emergency.

Once it’s established that the call is for health advice, nurses ask a series of questions about symptoms, following on-screen medically approved protocols developed by the renowned Cleveland Clinic. Using the information, as well as professional judgment, nurses advise on the most appropriate course of action.

Self care may be appropriate, for example, or the nurse may recommend the caller visit a physician. In these instances, nurses will direct the caller to the nearest hospital emergency room or provide phone numbers in the caller’s home health region for services or programs. If the call is simply for information, nurses can access over 5,000 clinically approved health topics.

The Health Line project began with the Regina QuAppelle Health Region’s (RQHR) successful response to a Government of Saskatchewan proposal to develop and run a health advice line for the whole province.

Dr. Gill White Primary Health Services Branch says Health Line supports the province’s overall plan to develop and strengthen primary health services. “It is increasingly important for people to have immediate access to informed health advice and information,” White says.

Health Line offers that to residents in every corner of the province and helps people to better understand how to use health service’s appropriately.

Health line will make a difference, especially for people who are unsure whether to call their physician or go to an emergency department at 3:00 in the morning with a health concern.

Post Polio: The past as present

by Dr. Richard L. Bruno
Director, Post-Polio Institute, New Jersey

In the 1940s and 50s, the polio epidemic tested our health care system. The epidemic is over, but thousands of Canadians still feel its effects in the form of Post-Polio Sequelae, or PPS.

The polio virus is an awesome thing. It has been around at least since the time of the Pharaohs but didn't really come into its own until 1943, when it was elevated to the status of plague. Today, there are 1.8 million North American polio survivors, as many as 77% of whom are experiencing Post-Polio Sequelae (PPS) (late-onset fatigue, muscle weakness, joint and muscle pain, cold intolerance, disturbed sleep, and problems with breathing and swallowing) occurring about 35 years after their acute polio.

PPS is neither a disease nor related to a "reactivation" of polio virus hiding in the body for decades. PPS are triggered by "over use abuse"-physical over-exertion and emotional stress-causing the metabolic failure of polio-damaged neurons in the brain and spinal cord.

Autopsies performed 50 years ago showed that a polio virus infection damaged 90% of the neurons in the spinal cord, on average killing 50% outright. The remaining neurons had their internal energy production system and chemical "factories" attacked. Yet, the remaining damaged neurons sent out sprouts, like extra telephone wires, that eventually reconnected muscle fibers orphaned when their motor neurons were killed by the poliovirus.

The recovery of damaged motor neurons and sprouting allowed individuals who were quadriplegic immediately after polio, to walk out of the hospital nine months later, looking totally "normal."

However, "normal-looking" polio survivors, even those who had so-called non-paralytic polio, functioned for 35 years with half the neurons with which they were born. These are damaged neurons doing ten times the work they originally did.

Mosquito bites: Before reaching for the insect bite cream, try rubbing the affected area with the inside of a banana skin. Many people find it amazingly successful at reducing swelling and irritation.

Nerves: Bananas are high in B vitamins that help calm the nervous system.

Overweight and pressure at work? Studies at the Institute of Psychology in Austria found pressure at work leads to gorging on comfort food like chocolate and crisps. Looking at 5,000 hospital patients, researchers found the most obese were more likely to be in high-pressure jobs. The report concluded that, to avoid panic induced food cravings, we need to control our blood sugar levels by snacking on high carbohydrate foods every two hours to keep levels steady.

Ulcers: The banana is used as dietary food against intestinal disorders because of its soft texture and smoothness. It is the only raw fruit that can be eaten without distress in over chronicler cases. It also neutralizes over-acidity and reduces irritation by coating the lining of the stomach.

Temperature control: Many other cultures see bananas as a 'cooling' fruit that can lower both the physical and emotional temperature of expectant mothers.

Stress: Potassium is a vital mineral, which helps normalize the heartbeat, sends oxygen to the brain and regulates your body's water balance. When we are stressed, our metabolic rate rises, thereby reducing our potassium levels. These can be re-balanced with the help of a high potassium banana snack.

Strokes: According to research in 'The New England Journal of Medicine' eating bananas as part of a regular diet can cut the risk of death by strokes by as much as 40%!

Warts: Those keen on natural alternatives swear that, if you want to kill off a wart, take a piece of banana skin and place it on the wart, with the yellow side out. Carefully hold the skin in place with a plaster or surgical tape!

So you see a banana really is a natural remedy for many ills. When you compare it to an apple, it has four times the protein, twice the carbohydrate, three times the phosphorus, five times the vitamin A and iron, and twice the other vitamins and minerals. It is also rich in potassium and is one of the best value foods around.

Maybe its time to change the well-known phrase to: "*A Banana a day keeps the doctor away*"

newborn, a devastating illness that causes brain damage in the child.

Myth *“Diseases had already begun to disappear before vaccines were introduced because of better hygiene and sanitation. Therefore, vaccinations are not necessary.”*

Fact Improved socio-economic conditions have undoubtedly had an impact on disease. Better nutrition, the development of antibiotics and other treatments have increased survival rates among the sick; less crowded living conditions have reduced disease transmission; and lower birthrates have decreased the number of susceptible household contacts. However, better sanitation cannot be totally responsible for the drop in the incidence of disease.

Consider these examples:

Invasive disease due to **Haemophilus influenzae type b (Hib)** such as meningitis was prevalent until vaccines for infants were developed just a few years ago. Since sanitation is no better now than it was in 1990, it's hard to attribute the virtual elimination of Hib disease in children to anything but the introduction of routine immunization.

Despite modern sanitation, almost all children still get **chicken pox** just as they did 20 or even 80 years ago. If diseases were disappearing, the incidence of chicken pox should at least be decreasing.

When countries let their immunization levels drop, the impact is dramatic and immediate. In Great Britain, a drop in **pertussis (whooping cough)** vaccination in 1974 was followed by an epidemic of more than 100,000 cases, including 36 deaths, by 1978. Currently, a **diphtheria** epidemic rages in the former Soviet Union due to low primary immunization rates and lack of booster immunizations in adults. Reported cases have soared from 839 in 1989 to nearly 50,000 in 1994, including 1,700 deaths.

Myth *“The majority of people getting disease have been fully immunized. Therefore, vaccinations don't work.”*

Fact It is true that no vaccine is 100% effective. For reasons related to the individual, not all persons vaccinated will develop immunity. Since most routine childhood vaccines have a success rate of 85% to 90%, there will be a build-up of 10% to 15% of vaccinated people each year who are still susceptible to getting the disease. It is also true that most people who get a disease have been immunized. However, this does not prove that the vaccine doesn't work.

Consider this hypothetical situation: In a high school of 1,000 students, 970

paralysis, will have LEP. As we age, the muscles that have been doing double duty are having problems.

Pain and new weakness are signs that these muscles are protesting and no longer able to continue doing 'double duty' to compensate for the paralysed muscles.

Treatment for LEP means resting these overworked muscles; using canes, walkers, crutches, wheelchairs and braces - anything to help support the weakened muscles and to allow them to function as long as possible.

LEP also involves the die-back of fragile neuronal sprouts. During acute polio, some neurons died making 'orphans' of the muscles that they used to innervate. Without innervations, these muscles were paralysed.

During the recovery period, some (or almost complete) use of these paralysed muscles was regained. How? The nerve cell that innervated it did not rejuvenate, but nerve cells that served nearby muscles sent out 'sprouts' - kind of like extension wires - that attached to the 'orphaned muscle' and once more carried nerve impulses to the muscle allowing it to function. These 'sprouts' are thinner and not as robust as the original nerve that died. A good analogy is that the original nerve carried 220 volts but the 'sprout' can only carry 125V. Over time, with use ...and with age... the fragile 'sprouts' are wearing out.

Once again the best treatment is not to overwork the muscles that are served by these 'sprouts' - to use scooters and wheelchairs to help maintain these sprouts for as long as possible.

LEP will happen ONLY in people who had paralytic polio. However LEP are not the same thing as PPS. PPS occurs in some, but not all people who had paralytic polio AND it occurs in about 40% of people who had non-paralytic polio. It does not depend upon death of neurons during acute polio nor is a result of paralysed muscles. PPS does produce symptoms similar to LEP, pain, new muscle weakness and fatigue but it also produces additional symptoms that reflect immune system activation. For example, physical over exertion will result not only in pain, weakness and fatigue but also in low grade fever, chills, swollen glands and a general feeling that one is becoming ill.

Post-Polio Update, May 2003

With Susan L. Perlman, M.D.
Associate Clinical Professor of Neurology UCLA Medical Center, Los Angeles,
Reported by Mary Clarke Atwood
Editorial assistance by V. Duboucheon and S. L. Perlman, M.D.

This report is based upon Dr. Perlman's presentation in Newport Beach, California to the Post-Polio Support Group of Orange County, on May 18, 2003.

Fear Factor

Or, why is it so hard to find a doctor who knows about post-polio syndrome and is willing to treat it?

Because one of the first things physicians are taught is, do no harm. A physician might tell a PPS patient, "I'm not the right kind of specialist." Or if the physician fears there is something particular about this disease that they don't know and they might recommend something wrong. Or they might say there is no evidence-based treatment that he can justify recommending. With the abundance of information currently available on the Internet, a physician can quickly educate himself about PPS.

Caution Signs :

1. Post-Polio Muscle Atrophy (PPMA), often referred to as PPS, weakens nerve muscle communication and performance. Therefore drugs that affect those areas should be used with caution.
2. Polio survivors and the professionals who treat them need to increase their knowledge regarding exercise. Pushing activity or exercise to the point of pain or fatigue will make PPMA worse. Repetitive actions are the worse offenders.
3. Appropriate adaptive equipment and bracing will not cause more weakness when used properly. Do not be afraid to use adaptive equipment with muscles that are already weak. This equipment will actually make a person stronger by relieving stress on the muscles.
4. Don't blame everything on polio; polio survivors are not immune to other conditions and/or diseases.

Age Well: Forget the Myths

From: Active Living Magazine

Based on results of a comprehensive scientific study on aging in America by the John D. and Catherine T. MacArthur Foundation. They have written a book called "Successful Aging".

Myth #1 *To Be Old is to Be Sick*

One of the most heartening findings in the MacArthur Foundation Study is that older people are much more likely to age well than to become decrepit and dependent. Relatively few elderly people live in nursing homes – just 5.2 percent. Of the study participants who ranged in age from 65 to 74, 89 percent reported having no age-related disabilities whatsoever.

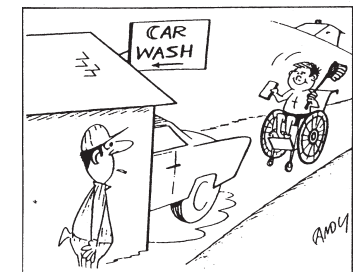
According to the study, most older Americans are healthy. The huge reduction in acute infectious illnesses in the twentieth century, and the more recent decline in precursors to chronic disease such as high blood pressure, high cholesterol levels and smoking all contribute to this general increase in well-being. We're not only living long, we're living better!

Myth #2 *You can't teach an Old Dog New Tricks*

Forget this old saw – the reality is that older people can, and do learn new things. According to the study, there are three key factors that predict strong mental function in old age: (1) regular physical activity; (2) a strong social support system; (3) a belief in one's ability to handle what life has to offer.

Older people are ready and able to learn to use equipment that did not exist when they were young. The mysteries of kitchen appliances, computers and VCR's can all be mastered.

One of the most positive findings in the study showed that elderly people who have experienced some cognitive decline can, with appropriate training, improve sufficiently to regain as much as twenty years of memory loss.



Today, Carole has four beautiful grandchildren which she visits regularly. With her experience at the family bakery, Bubbie got a job at Safeways decorating cakes – “this involved long working hours—standing on my feet; -resulting in tremendous aches to leg and back muscles”.

“I often had to crawl from my truck into the house because my legs were so sore,” Carole said. “Sometimes, I couldn’t function for a day or two,” Carole said. In 1990 she quit her job and moved to Regina. Again, Carole found a male relationship in 1993. That relationship prospered well for a time but that marriage also ended in divorce.

Carole’s resolve is not crushed. She has a life to lead and to fill the void in her life –and earn some much needed income- she became a house mother to series of international students attending University of Regina.

“I just love those kids as if they were one of my own. I learn so much from them. They are the love of my life. I love doing it because these foreign people need us to help them learn the English language in order to get jobs and become productive members of our society.”

That’s our Bubbie- full of action and get-go. Carole is our program director and always looking for new, innovative program ideas. Give her a call. She listens.

Carole was our delegate to the Polio Canada training seminar held this summer at St Catherines, Ontario and gathered a wealth of information which will be distributed to our members throughout the year.

Health Line Launched (1-877-800-0002)

And ready for your call
People throughout Saskatchewan have telephone access
to a toll-free, 24-hour a day health advice line. **(1-877-800-0002.)**



Staffed by registered nurses with special training, callers can talk to healthcare professionals and receive, valuable advice, any time of the day or night. In its initial weeks of operation, nurses taking calls are enthusiastic helping people and developing a solid service.

of their past, discard the “use it or lose it” physical therapy of their childhoods, learn to “conserve it to preserve it” and decrease PPS symptoms.

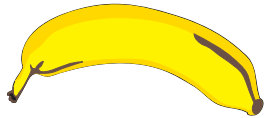
The hope for all Canadian polio survivors is that some day soon they, their doctors and their therapists will learn about the cause and treatment of PPS and the constant need to remember the “Golden Rule” for PPS” : ***“If something causes pain, fatigue or weakness, don’t do it!”***

The following is a paid advertisement.

Eat a banana; the magic food....

The following article was printed in the Florida East Coast Post-Polio News Letter and was submitted by Beverly Schroll - Florida

After reading this, you'll never look at the Banana in the same way again!!



Doctors' Home Remedy: If you want a quick fix for flagging energy levels there's no better snack than a banana. Containing three natural sugars - sucrose, fructose and glucose - combined with fiber a banana gives an instant, sustained and substantial boost of energy. Research has proven that just two bananas provide enough energy for a strenuous 90 minute workout. But energy isn't the only way a banana can help us keep fit.

Depression: According to a recent survey undertaken amongst people suffering from depression, many felt much better after eating a banana. This is because bananas contain tryptophan, a type of protein that the body converts into serotonin known to make you relax, improve your mood and generally make you feel happier.

PMS: Forget the pills - eat a banana. The vitamin B6 it contains regulates blood glucose levels, which can affect your mood.

Anemia: High in iron, bananas can stimulate the production of hemoglobin in the blood and so helps in cases of anemia.

Blood Pressure: This unique tropical fruit is extremely high in potassium yet low in salt, making it perfect to beat blood pressure. So much so, the US Food and Drug Administration has just allowed the banana industry to make official claims for the fruit's ability to reduce the risk of blood pressure and stroke.

Constipation: High in fiber, including bananas in the diet can help restore normal bowel action, helping to overcome the problem without resorting to laxatives.

Heart burn: Bananas have a natural antacid effect in the body so if you suffer from heart burn, try eating a banana for soothing relief.

Morning Sickness: Snacking on bananas between meals helps to keep blood sugar levels up and avoid morning sickness.

And it's the inability of these polio virus-damaged neurons to continue to overwork that underlies the new symptoms of PPS.

A new study by A.J. McComas at McMaster University has shown that a limb weakened by the original polio had only 40% of its normal number of motor neurons. Even limbs that were thought not to be affected by polio have only 60% of the motor neurons they should have.

Most disturbing is the finding that polio survivors lose nearly 7 % of their motor neurons per year, while survivors with PPS muscle weakness lose as many as 50%.

Post-Polio Brain Fatigue

Research over the past seven years at the Post-Polio Institute has shown that late onset fatigue, the most common and disabling PPS, is associated with impaired attention on neuropsychologic tests, slowing of brain waves, reduced production of brain activating hormones and even lesions that show up on MRI scans of the brain.

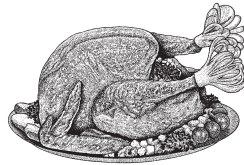
These findings suggest that poliovirus-damage to the brain stem neurons responsible for activating the brain, also found during autopsies of polio survivors 50 years ago, are responsible for decreased brain activation and the symptoms of PPS fatigue.

This hypothesis was supported by a placebo-controlled study of bromocriptine at The Post-Polio Institute. This drug substitutes for the brain activating hormone dopamine, decreasing the symptoms of PPS fatigue.

However, medication is not the treatment of choice for any PPS symptom. Our just-published follow-up study of all of the patients treated by the Post-Polio Institute team shows that all PPS symptoms either plateau or decrease if polio survivors reduce physical over-exertion and emotional stress by decreasing, pacing or eliminating strenuous activities, resting during the day, sleeping well and using newly prescribed or long-ago discarded assistive devices. All of the research has shown that PPS symptoms persist or increase only in patients who fail to take care of themselves.

This and that and that

Christmas Banquet at 6 pm December 6, 2003
at Westminster United church hall
(13th Avenue). Buy your tickets quickly.
Phone Verna before Dec. 1st @ 781-1314
if you still need tickets.



Thank you for donations made for our raffle and
for our door prizes.

First prize (a Garden Weather Vane) was donated by Lakeview Gardens,
second prize (A Welcome Bear) was donated by Maurice Denzin.

Our well wishes for a quick recovery to **Ruth Adelia** who has been in hospital but
is back home now and making a good recovery. If someone you know has been in
hospital, please let us know.

Reminder that we meet the last Thursday of every month (except July, Aug. and
December) at 7 pm at the Wascana Hospital.
Next Meeting will be held January 29, 2004. Memberships are due January 1.

What causes Post Polio Syndrome?

*This article contributed by Carole Einfeld, Polio Regina Inc. from:
"Julie Silver, MD" presented to: NationalPostPolio@yahoo.com*

The short answer is we do not really know although there are some hypotheses.
Before we look into these hypotheses I believe we need to differentiate the Late
Effects of Polio (LEP) from Post-Polio Syndrome. So let's start here.

The Late Effects of Polio (LEP): These are mechanistic problems. They have their
origin in muscles that were paralysed during acute polio. In many cases, as we
recovered, other muscles managed to takeover the job of the paralysed muscle.
These muscles did two jobs - both their own and that of the paralysed muscle.
Virtually all people who had paralytic Polio, with subsequent residual weakness or

have been vaccinated against measles. None of the students has had measles
before. Given the failure rate of the vaccine, about 97 vaccinated students
would still be susceptible. When the student body is exposed to measles,
every susceptible student becomes infected because measles is highly
contagious. The 30 unvaccinated students will obviously become infected.
However, because of the failure rate of the vaccine, 97 vaccinated students
would probably also become infected.

The existence of 97 vaccinated students who still got measles doesn't
disprove the effectiveness of the vaccine. In fact, the measles vaccine
protected 90% of vaccinated students. Without a vaccination program, all
1,000 students would have got measles.

Myth *"There are many reports of harmful side effects, including deaths. This
proves that vaccines are not safe."*

Fact Vaccines are actually very safe. Minor side effects like a sore arm or a mild
fever can be often be controlled by taking acetaminophen before or after
vaccination. More serious adverse effects occur on the order of one per
thousand to one per million doses. Clearly, even one serious adverse effect in
a million doses of vaccine would be unacceptable if there were no benefits
from the vaccination. However, it's clear from experience around the world
that without vaccines there would be many more cases of disease and many
more serious side effects, including death.

Myth *"Giving a child multiple vaccinations for different diseases at the same time
increases the risk of harmful side effects. It can overload the immune
system."*

Fact A number of studies have shown that giving combinations of vac-cines is
both safe and effective. It's also practical, allowing a child to receive several
vaccinations during the same visit. This means fewer office visits, saving
parents both time and money. Fewer vaccinations may also be less traumatic
for the child.

Further reading:

The Canadian Immunization Guide, Sixth Edition, 2002, published by Health Canada and
the Canadian Medical Association.

Your Child's Best Shot: A parent's guide to vaccination. Published by the Canadian
Paediatric Society, 1997.

Health Canada, Laboratory Centre for Disease Control Web site: <http://www.hc-sc.gc.ca>
Canadian Immunization Awareness Program

Well then, what causes PPS?

At this point we can only suggest a plausible hypothesis - PPS may be the result of a very low level of polio virus (or virus fragments) remaining in the body to cause an immune, or even an auto-immune, reaction. People with PPS are NOT infective and they will NOT get polio again.

Many viruses have a persistent form, the most famous being chicken pox. We know that some people who had polio do not experience the mind-numbing fatigue or the progressive new muscle weakness that is typical of PPS.

The best explanation is that when these people had acute polio, the virus was completely cleared from their body. This was supposed to happen to everybody who had polio.

Only recently, with new and very sensitive techniques, have scientists been able to detect tiny bits of polio virus that linger in the bodies of some people who had polio. A lingering virus would explain why some people who had non-paralytic polio now find themselves increasingly incapacitated, with new muscle weakness, pain and fatigue identical to that of people who had paralytic polio.

What is the treatment for PPS? Any weakened muscle will demand rest, so the use of scooters, wheelchairs and other assistive devices will be helpful. However it may be possible to develop a pharmaceutical approach to treating PPS symptoms. For instance anti-viral medication, or drugs that modulate the immune system may prove useful in treating PPS.

Much research needs to be done in this area. However these drugs will probably not help the LEP because these symptoms have a totally different origin.

Does it matter if I have LEP or PPS?

The short answer to this question is “NO”, not now. The treatment for both is similar at this time. In the future, if pharmaceutical treatment for the residual virus or the effects it has on the immune system become available, it will be necessary to differentiate the two conditions.

What about exercise?

Everyone needs some form of exercise. Polio survivors just need to find the particular form that is appropriate for them. Weak muscles should not be stressed. People should not exercise to the point where they are ill with fatigue.

However there are exercises which can be tailored to each individual and which will help lessen fatigue caused by deconditioning and which also will help to prevent unwanted weight gain.

It is important to find a physiotherapist who can help you to develop an exercise program just for ‘you’. It is also important to do the exercises once you have them!

Stretching

There is a new way of moving that body that is proving very helpful to polio survivors and other people as well. It helps to increase range of motion without adversely affecting weak muscles. Once again you need to find an appropriate practitioner.

Yoga, mediation and other esoteric programs also may prove helpful in minimizing pain and restoring some degree of flexibility as well as generally providing relief from the hectic lifestyle that most of us lead. Be aware, be informed and be careful.

Myths and Facts About Immunization

Myth *“Vaccine-preventable diseases have been virtually eliminated from Canada so there is no need for my child to be vaccinated.”*

Fact Disease knows no borders. Travellers can unknowingly bring diseases into Canada. Without protection from vaccination, these diseases could quickly spread, leading to epidemics.

There are two reasons to choose vaccination.

To protect ourselves. Diseases can infect anyone who is not protected. To protect others. A small number of people cannot be vaccinated because of severe allergies. In addition, there is a small percentage of vaccine failures. These two factors result in people who are susceptible to disease.

A society depends upon the cooperation of every individual to ensure the good of all. An unvaccinated child carrying rubella, for example, can infect a pregnant woman. This can lead to congenital rubella syndrome in the