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WHEELCHAIR WEIGHT CONTROL FROM A BODYBUILDER PERSPECTIVE

How and why is weight control now a problem?

With the onset of PPS, you may notice some rather insidious changes happening in muscle size, shape and functioning and bodyfat distribution. Weight gain will occur as energy expenditure decreases, especially while confined to a wheelchair. Muscle atrophy (shrinking) occurs at an alarming rate due to progression of PPS, and joint/muscle stiffness will increase due to chronic bent knee positioning required in a seated position for wheelchair mobility. More important to bodyfat gains, is the behavioral component that may accompany the stress reaction/depression that characterizes a Polio Survivor's reaction to the sudden life change requirements of a new disability. Skipped meals, eating more due to depression, lack of enough fluid intake due to swallowing problems, severely reduced motion due to pain, and more reliance on fast food or highly processed foods all contribute to a steady, and seemingly hopeless weight gain.

In my many years of adopting the bodybuilder-type lifestyle, I was constantly experimenting with alternate forms of nutrition, supplements, and varying meal patterns to find something that would increase muscle mass while reducing bodyfat levels. I was able to maintain a constant 13% bodyfat on a year round basis with a high level of power/free weight lifting on a 4-6 day/week schedule. This level of physical training is impractical for full-blown PPS, and has now presented itself as the ultimate challenge for a wheelchair bound ex-bodybuilder.

Now what to do?

Back to the basic bodybuilding tenets of building/maintaining muscle mass! One must consume enough nutrients (protein, carbohydrates, and fats) to balance the energy demands of the body. Now if the simple premise of PPS is that we are losing muscle tissue at a faster rate than retaining it (and hence atrophy), then it stands to reason that by maintaining a higher proportion of ingested protein on a daily basis <u>may</u> help the overall physical condition of PPS. By "leaning out", weight loss can occur, but it will be very gradual unless there is some form of physical conditioning to accompany it. The overall nutrition plan

is simple:

- 1. Consume approximately 10 calories per pound of bodyweight per day, divided into 5 balanced meals. (For example, if you weigh 130 lbs, you should consume approximately 1,300 calories a day, preferably divided into 5 meals that contain between 200 and 300 calories each.)
- 2. Consume approximately 1 gram of protein and 1 gram of carbohydrates per pound of bodyweight per day. (For example, if you weigh 130 lbs, you should try to consume approximately 130 grams of protein per day and about 130 grams of carbohydrates per day.)
- 3. Restrict fat intake to 20 grams per day.(This is the toughy!)
- 4. Drink at least 0.6 oz of water per pound of bodyweight each day. (For example, if you weigh 130 lbs, you should drink at least 78 oz [approximately 8 tall glasses] of water per day.) Minimum goal would be 2,000 cc of liquids/day.

Let's take one step at a time...

Calorie Counts

Once confined to a wheelchair for most of the day, I found that my caloric demands were actually reduced to far lower levels than I thought possible. Who would have thought that the legs used so much energy/calories even when not powerlifting? I am presently on a rotating calorie daily plan of 900 to 1200 calories per day, which does not leave any room for high calorie "junk food". One way to really find out how many calories of fats, carbs, and protein you are intaking is by keeping a daily log or diary of everything that you ingest within a 24-48 hour period (Serious bodybuilders keep this daily log up even when off season from competition). You will need a calorie book that lists calories by grams of fats, carbs, and protein. Or there are several good software programs available for download for calorie counts:

<u>Diet Watch</u> (freeware) <u>Food Watcher</u> (\$20.00 shareware/free to download and try)

Most people underestimate the portion size of the foods they eat, so be honest with yourself and the measured amounts. I think you will find that most "normal" people, sedentary or not, consume less than 30 grams of protein daily. I have found that just by increasing the daily protein intake to half the recommendation (i.e. one-half gram of protein per pound of body weight) can make a real difference in overall health.

The tricky part of increasing protein is to find foods that are high protein, low in carbs (relatively), and have a minimal amount of fat. The mainstay of a bodybuilder's diet is turkey(white meat only), chicken(broiled or baked, never fried), and fish, specifically

tunafish. Beef products are a "luxury item" for a bodybuilder, and are rarely eaten more than once weekly. Spreading the calories of protein over several meals per day gets even tougher without pulling back into the bodybuilder's arsenal. All serious bodybuilders use some form of protein drink, and I am NOT talking about the routine drinks available in the grocery aisle such as Ensure or SlimFast. There is an entire underground knowledge base of information and products available for easy, less carbohydrate-loaded drinks to supplement protein intake throughout the day. However, this "muscle" industry is loaded with frauds, and incorrect labelling of product contents. Most of the poorer protein products are hard to mix (4 days in a blender for a start), taste horrid, and are quite expensive. After years of personal experimentation and study, here are a few good products to try:

TwinLab's Diet Fuel (comes in powdered form, and can be mixed with plain water)

EAS's MyoPlex Lite (comes in pre-packaged servings for easy portability)

Parrillo's Hi-Protein Powder (very easy to mix formula that has virtually no taste)

Met-Rx Drink Mix or Bars (The original protein drink that I lived on for several years while competing, comes in pre-packaged servings, also, but is harder to mix without a blender)

Trying to locate suppliers of these "exotic" products is not as hard as you might think, and most of them have web ordering sites on-line at present:

<u>DPS Nutrition</u> Wholesale prices, fast delivery..I have used this distributor monthly for over 3 years, and have been pleased with their service

<u>Parrillo products</u> A bit more expensive, but the quality is consistent, and taste is good

<u>Experimental Applied Sciences</u> The product marketing effort of MuscleMedia magazine, offers the latest researched products and methods

More than 3 meals a day?

The whole idea behind supplementing with pure protein products at *least* twice daily is to keep a constant level of nutrients in the bloodstream/liver glycogen stores. When the body no longer has to store calories/fats because your eating times are erratic, and your insulin levels even out from steady intake, you will feel *better*. Believe it or not, it is has been proven that the same calorie intake spread out over at least 4 daily "meals" will cause weight loss all by itself as compared to eating one large daily meal. In essence, you will be slowly training your body to NOT store calories for a

future expected meal loss. This is one of the basic tenets of a bodybuilder's diet. An in-depth background study of this issue is covered in the websites listed above.

An example from one of my bodybuilding diet journals to show how this type of diet works:

8am: serving of oatmeal, protein drink, coffee

10am: Protein drink

Noon: lean meat, such as tuna made with low calorie dressing, no bread, dark green leafy vegetable(cooked or raw), and a carbohydrate source such as a potatoe (with Molly McButters fake butter sprinkles)

3-4pm Protein drink or bar (Parrillo bars are a real treat!) 6pm More lean meat, such as chicken breast, or turkey, smaller amounts of vegetables and complex carbohydrate, such as yams, brown rice

Please note!

No meals are consumed after 6pm for a specific reason. The body has a tendency to store all food stuffs as fat after the natural biorhythm starts slowing down at day's end. The only time I ever ate in the evening as a bodybuilder was after completing a hard bench press or leg press routine. Even then, the goal was to consume only high grade protein that late at night to supplement muscle stress/growth, and usually consisted of a can of tunafish (with small amount of low-cal salad dressing). I daresay that most PPSers do not expend that kind of physical energy that late in the evening on a routine basis.

After sitting down and calculating the grams of each food that you eat throughout a specified period of time, you will quickly learn the ropes on fat content of most foods. You may even get to the point of looking at a McDonalds hamburger, and instantly realize that the fats and calories just for that one meal exceeds several days worth of alloted intake to maintain or lose weight. The hard part is making a conscious effort to control what you eat, when you eat, and whether the weight control is a change that is worth the effort. For over 10 years, I learned to consider food to be primarily a "tool" to attain a specific goal of appearance on stage. I found that once I started to attain a goal, food lost its' impact over my eating behavior. I have looked at this issue from a Polio Survivor's viewpoint...most Polios have learned over the years to tackle challenges, and succeed. As I have lost control over much muscle functioning in the last 2 years, I can still control my health and weight without the PPS interfering. It is one of the last ways left to regain control over body functioning, and maintaining health.

What about physical conditioning for a **PPSer?**

As the symptoms of PPS worsened for me over the last year, even lighter weight lifting workouts (high rep sets, minimal aerobics) was way too much for over taxed Polio muscles to handle. As I have learned to "downshift", I have found some forms of exercise helpful in reducing stress, preventing contractures (in essence, "frozen" joints from inactivity and spasticity), and maintaining some flexibility in large muscle groups. Slow, low physical stress type of exercise movements are now the norm, and my present goal is to attempt some form of exercise at least 3 times weekly. One of the best ways to maintain conditioning is by relaxed swimming in warm water, and there are now programs in several areas of the country that offer these programs specifically geared for the PPSer. (Hmmm...is that why I used to love scuba diving so much?) The method I am using at present is video taped beginner Yoga sessions, focusing on floor work instead of standing movements. Tai Chi, although good for slow muscle movements. was too much standing for my weakened Polio leg muscles. Yoga does take some consistency in effort, but the benefits in lessening of spasticity and stress are worth it in the long run, and quite painless to boot. The bodybuilder motto of "no pain, no gain" is now a forgotten concept. There are 2 Yoga videotapes available on the internet that I would recommend:

<u>Wai Lana Yoga</u> Start with the easy beginner tape, and watch the entire tape throughly before actually beginning practice.

Maintaining a sense of humor helps also, at first, because the movements look rather strange to the uninitiated. The tape last less than 30 minutes, and is excellent.

<u>Floor Point Yoga</u> There are testimonials on this site from PPSers about the floor only routines that are covered on the tape. Even though the site has not been updated, the tape is selling well according to Debbie Moore, the instructor on the tape.

What about fancy supplements?

Supplementation is a bodybuilder's mainstay, and a few of the basics can be transferred over to a PPSers' goal of maintaining lean body weight. I would recommend the following items, based on your level of seriousness and financial constraints. These items are in addition to the protein supplements throughout the day, and need some form of physical conditioning component for them to be the most successful:

Creatine Monohydrate This powder, a rounded teaspoon taken twice daily (I mix it in with Protein drink), can increase your energy stores, and increase the amount of water in muscle cells, ultimately assisting with muscle recovery. It has been extensively researched through clinical trials on muscle wasting in various diseases, such as AIDS and cancer malnutrition. Muscle tissue uses ATP as its primary source of energy. When used, the ATP becomes ADP, short a phosphate ion. When creatine monohydrate is ingested, it joins with a phosphate and is shuttled to the muscles

as creatine phosphate. In the muscle, the CP molecule is broken down and the phosphate is donated to the ADP to re-create ATP that can once again be used by the muscle for energy. And yes, bodybuilders really do have more of a handle on the science of nutrition than the public gives us credit for.

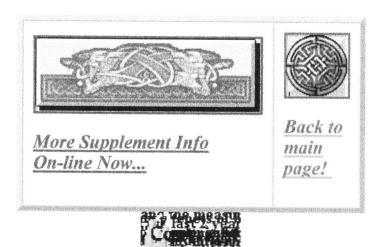
Multivitamins/Antioxidants I would recommend any over the counter multivitamin, but the ones specificall labeled for "prenatal" use are the most complete. Additional Vitamin C (2-3,000 mgs. daily), along with a good antioxidant packet is inexpensive insurance for health. I would also recommend a calcium supplement for all women.

HMB..beta-hydroxy beta-methylbutyrate This is another newer bodybuilding discovery that may help decrease stress-induced muscle protein breakdown and help with weight loss of bodyfat while preserving muscle mass. The loading dosages and methods of adding this metabolite of the essential amino acid leucine can be found on the product websites listed earlier.

These items have all been tested through clinical research trials, with successful results. Other products out on the market, such as inosine, dessicated liver tablets, etc, have not shown the consistent results seen with creatine and HMB.

For a 350 page book detailing the various supplements available over the counter entitled *Sports Supplement Review* (I would highly recommend) send \$3.00(to cover shipping, otherwise the book is available for free) to:

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