A major concern for people with spinal cord injury (SCI) is weight management. There are a lot of diet and exercise programs that claim to be the answer to weight problems. But what really works for people with SCI? Is the answer exercise? If you have the ability to exercise, it can certainly help with weight management and overall good health. However, individuals with a high level SCI may have difficulty exercising enough to make a real difference. Is the answer nutrition? Yes! Good nutrition can benefit everyone when it comes to weight management, especially individuals with SCI.

Good nutrition can not only help you with weight management, but it can also give you more energy, help fight infections and keep your body systems working properly. It can benefit individuals with SCI in the reduction of heart problems, pressure ulcers, kidney and/or bladder stones, urinary tract infections and irregularities in bowel management. Individuals with SCI who properly maintain their weight can also see improvements in the way that it effects appearance, transferring and endurance. The benefits are there, and establishing good nutritional habits are easy to do. You just have to find a nutritional approach that works for you.

Before starting a weight management program you should do two things: (1) find out what you weigh, and (2) determine what you want to weigh. You start by getting an accurate weight of yourself. To do this you will likely need to find a scale that accepts wheelchairs. You may find a roll-on scale at your local rehab clinic, or you may be able to find one at your local butcher shop or supermarket. First, measure the weight of your chair alone. Then subtract that number from the total weight of you and your chair. That number is your weight. After you get an accurate weight of yourself, set a goal on how much you would like to weigh. Table 1 on page 2 offers suggested target weights for persons with SCI. Remember, this is only a guideline. Talk with your doctor about the proper weight for you.
first and save the meat for last. Then I only eat half of the meat." For Sidney, who once weighed 130 pounds, "grazing" is a very effective way to maintain her preferred weight of about 100 pounds. It is an easy way of eating but yet very healthy.

It is recommended by nutritional programs, like UAB's EatRight (see page 4) and nutrition guides like the Food Guide Pyramid, that you should eat breads and grains more than you eat various fruits and vegetables; you should eat fruits and vegetables more than you eat meat and dairy products; and you should eat as little fats, oils and sweets as possible. This is a good guideline to follow.

"It's been nothing fancy or anything," says Scarlett Clayton, "I just cut down on my portions of food. I leave sweets alone, watch my fat content and read a lot of food labels." Scarlett, who sustained a T-12 injury in an auto accident in 1995, knows the benefits of weight management. "I've lost 48 pounds since April. I feel a lot better. I've noticed a difference with me in my chair, in my clothes, and it makes it easier for me to transfer."

If you are serious about weight management through good nutrition, learn to understand the "Nutrition Facts" label found on food containers. This label can be used as an easy way to help you understand important facts like serving size, calories, total fat, cholesterol, sodium, protein, fiber and calories from fat. These facts are essential to weight management through good nutrition.

"I weighed 257 pounds four years ago, and I had never been that big," exclaimed Mike Drummond, who has the rare spinal disorder, syringomyelia, at T-7. "I decided to cut out the snack foods, and I bought fat-free products that taste good. I did not go by a "book" diet. I did it the way I needed to do it." Mike now weighs 205 pounds.

Although a good nutritional program can benefit everyone, you need to find out what works well for you. Make a commitment to manage your weight. Utilize the Nutrition Facts label, and follow a healthy nutritional guideline like the Food Guide Pyramid. For individuals with SCI, it is a choice that can result in a great improvement in your physical and mental condition. But you have to make that choice.

### Table 1 Height and Weight Chart for Tetraplegic and Paraplegic Women and Men

<table>
<thead>
<tr>
<th>Height</th>
<th>Suggested Weight for Women</th>
<th>Suggested Weight for Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetraplegia</td>
<td>Paraplegia</td>
<td>Tetraplegia</td>
</tr>
<tr>
<td>100</td>
<td>97-102</td>
<td>105</td>
</tr>
<tr>
<td>102</td>
<td>99-104</td>
<td>107</td>
</tr>
<tr>
<td>104</td>
<td>101-106</td>
<td>109</td>
</tr>
<tr>
<td>106</td>
<td>103-108</td>
<td>111</td>
</tr>
<tr>
<td>109</td>
<td>106-111</td>
<td>114</td>
</tr>
<tr>
<td>112</td>
<td>109-114</td>
<td>117</td>
</tr>
<tr>
<td>116</td>
<td>113-118</td>
<td>121</td>
</tr>
<tr>
<td>119</td>
<td>116-121</td>
<td>124</td>
</tr>
<tr>
<td>123</td>
<td>120-125</td>
<td>128</td>
</tr>
<tr>
<td>126</td>
<td>123-128</td>
<td>131</td>
</tr>
<tr>
<td>130</td>
<td>127-132</td>
<td>135</td>
</tr>
<tr>
<td>133</td>
<td>130-135</td>
<td>138</td>
</tr>
<tr>
<td>136</td>
<td>133-138</td>
<td>141</td>
</tr>
<tr>
<td>139</td>
<td>136-141</td>
<td>144</td>
</tr>
<tr>
<td>142</td>
<td>139-144</td>
<td>147</td>
</tr>
<tr>
<td>5'1&quot;</td>
<td>122</td>
<td>119-124</td>
</tr>
<tr>
<td>5'2&quot;</td>
<td>125</td>
<td>122-127</td>
</tr>
<tr>
<td>5'3&quot;</td>
<td>127</td>
<td>124-129</td>
</tr>
<tr>
<td>5'4&quot;</td>
<td>130</td>
<td>127-132</td>
</tr>
<tr>
<td>5'5&quot;</td>
<td>133</td>
<td>130-135</td>
</tr>
<tr>
<td>5'6&quot;</td>
<td>136</td>
<td>133-138</td>
</tr>
<tr>
<td>5'7&quot;</td>
<td>139</td>
<td>136-141</td>
</tr>
<tr>
<td>5'8&quot;</td>
<td>142</td>
<td>139-144</td>
</tr>
<tr>
<td>5'9&quot;</td>
<td>145</td>
<td>142-147</td>
</tr>
<tr>
<td>5'10&quot;</td>
<td>148</td>
<td>145-150</td>
</tr>
<tr>
<td>5'11&quot;</td>
<td>152</td>
<td>149-154</td>
</tr>
<tr>
<td>6'0&quot;</td>
<td>155</td>
<td>152-157</td>
</tr>
<tr>
<td>6'1&quot;</td>
<td>159</td>
<td>156-161</td>
</tr>
<tr>
<td>6'2&quot;</td>
<td>163</td>
<td>160-165</td>
</tr>
<tr>
<td>6'3&quot;</td>
<td>168</td>
<td>165-170</td>
</tr>
</tbody>
</table>

As a woman with SCI, do I have any special nutritional needs to consider?

Yes! You need calcium. Even young women who are not concerned about osteoporosis need at least 1,200 milligrams of calcium a day. If you have two good servings of calcium rich foods like milk and yogurt, you should get enough calcium. Also, since women who are in wheelchairs are at higher risk for losing calcium in their bones, you may want to talk to your doctor about taking a calcium supplement.

Is it unhealthy for me to be heavy around the middle?

Unfortunately, when you have a spinal cord injury (SCI) you are probably going to be heavy in the middle because of a lack of muscle. Even people who are not considered to be overweight may still have a little “pouch” in the middle because of lack of muscle.

Can I lose weight too fast?

Yes! If you go on a reckless diet, you may not get enough vitamins and minerals. You have to eat right. Another danger of losing weight too fast is that it will almost certainly cause you to get pressure sores.

Should I be taking a multi-vitamin?

Since most people do not eat as healthy as they should, it is probably a good idea to take a general multi-purpose vitamin once a day. However, you must be careful and consult your doctor before taking any nutritional supplement. You can get too much, especially with those so-called “mega-dose” vitamin supplements.

What if I become pregnant?

Women, especially of child-bearing age, need folic acid. Studies have shown that healthy amounts of folic acid reduce the risk for birth defects. You can get folic acid from orange juice.

In the 1970s Dr. Roland L. Weinsier, of the University of Alabama at Birmingham, developed Time Calorie Displacement. It is now known as EatRight, but the concept is the same. EatRight helps people lose weight because obesity affects your quality of life and possibly increases your risk for different diseases or other health problems. EatRight focuses on three areas.

**Time Calorie Displacement**

This is the idea that people can learn to eat food that takes longer to chew and displace a lot of calories as a result. It is very simple. The weight of the food in your stomach has a lot to do with when you stop eating. You usually stop eating when you are full, but there can be a big difference in the number of calories in your stomach when you stop eating. For example, one spoon of mayonnaise may have the same number of calories as five bowls of lettuce. You can eat the mayonnaise in one swallow, but it probably will not fill you up. On the other hand it takes some time to eat five bowls of lettuce, and it would likely fill you up. However, the number of calories in the two foods might be the same. That is time calorie displacement.

**What You Should Eat**

Many people have trouble sticking to a diet and not eating the foods that cause weight gain. We often do not allow ourselves to eat the foods we enjoy, like cake, because we are convinced it is bad for us because it can make us gain weight. This is a negative way of thinking. If you completely avoid eating cake, you are likely to “blow” your diet in what we call “binge” eating. So instead of eating a small piece of cake, you eat the whole cake. In the long run it is better to have a small piece of cake every now and then rather than eating a whole cake. This is a more positive way of thinking. It not only focuses on what you should eat but also focuses on how much you eat.

**Choose Right**

EatRight stresses that you should choose right when it comes to food. Some foods are simply not as good for us as others. Some foods do not require very much chewing and do not put weight in your stomach, but they have a lot of calories. They are high calorie foods like mayonnaise and cake. They contain a lot of fat. On the other hand foods like fruit and vegetables require a lot of chewing while putting weight in your stomach. They are low calorie foods. Fruit and vegetables are what the program calls “unlimited” foods. You can eat as much as you want. When you eat unlimited foods, you choose right!

Even though you follow a diet program, there is one thing that should be understood - everyone is eventually going to gain weight! It is called aging. As you age you start to lose what is called “lean tissue.” Lean tissue is everything in your body that is not fat tissue. It is your muscles, organs, blood and bones. Lean tissue determines how many calories you really need to burn for fuel. Fat tissue stores calories for your lean tissue to use. When you eat more calories than you burn, it causes weight gain. The calories that are not burned up become fat tissue. When you age, you begin to lose lean tissue, so you are gradually losing some of your ability to burn calories. You can help fight the loss of lean tissue by eating healthy and exercising. However, some diet programs can cause you to lose lean tissue. Do not do that! You are better off not dieting and staying the same weight.

Important things to consider when managing your weight....

1. Always consult your physician before beginning any diet or exercise program.
2. Make sure that you get enough protein. To find out how much protein you should have, take your body weight and divide it by two. That number is the number of grams of protein you need in one day.
3. It is recommended that you get between 25 to 35 grams of fiber per day. However, it is also strongly recommended that you very gradually increase your fiber and be aware of how this affects your bowel program.
4. Limit your salt (sodium) intake, but make sure you still get enough calcium, potassium and magnesium.
5. Take a multi-vitamin daily.
6. Drink plenty of water. Be sure to drink water with your meals and whenever you are thirsty.

**Note**

Preventive Nutrition and Stress Management are articles adapted from presentations given at the SCI Research Update Conference for individuals with SCI, families and providers on September 25, 1998 in Birmingham, AL.
People who handle stress have good interpersonal skills. They use rational thinking in dealing with others; they are not so quick to take things personally or lash out at others.
During the past 33 years, the Department of Physical Medicine & Rehabilitation at the University of Alabama at Birmingham has conducted research on the evaluation and treatment of secondary medical conditions for persons with spinal cord injury (SCI). The department recently received a new grant award to fund a Rehabilitation Research and Training Center (RRTC) on Secondary Conditions of SCI from the National Institute on Disability and Rehabilitation Research (NIDRR). This allows us to continue our research in areas of prevention and treatment of secondary conditions of SCI and provide training and informational materials related to these areas.

The new research is targeted toward improving the general health, well-being and community integration of persons with SCI. Research results will:

- produce new knowledge,
- improve service delivery and
- promote both social and economic independence for individuals with SCI.

To involve individuals with SCI in the research process, consumer advisors are a part of the research teams. The consumers involved with each project have personal experience with the research topic.

These individuals with SCI will meet with the research team throughout the project to provide ideas and opinions. Researchers will involve them in areas such as the design of research procedures, pilot testing possible methods for use, and helping to decide if instruments used are valid. The consumer can provide input on issues such as, would individuals participate in a project or would it be more of a burden because of the time involved?

Nationally recognized researchers are serving as external advisors to this grant. The research team will consult with them throughout the grant.

Major research projects will run over the next 5 years. The areas of research and projects for the new grant are:

**Urologic**
- Evaluate interventions to prevent and treat urinary tract infections (UTI) in persons with SCI.
- Determine the effect of cranberry pills to prevent and treat UTIs.
- Determine the relationship between beverage consumption and water hardness, and the development of urinary tract stones in persons with SCI.

**Pain**
- Study the effectiveness of gabapentin and methadone in relieving certain types of SCI pain.
- Complete a study of accepted SCI pain classification systems.
- Develop a method to target those at risk for SCI pain.

**Psycho-social**
- Evaluate the use of telemedicine to reduce depression and secondary conditions among persons with SCI and their caregivers through problem solving interventions.

**Pulmonary**
- Determine the duration of immune response to pneumococcal vaccine and the need for revaccination to maintain protection against pneumonia in persons with SCI.

**Respiratory**
- Evaluate a screening tool to identify persons with SCI at high risk for sleep apnea and treatments to improve their health and quality of life.

**Nutrition**
- Evaluate and adapt a nationally recognized weight-loss program for a population of individuals with SCI.

**Assessing Secondary Conditions**
- Collaborate with University of Kansas, Institute for Life Span Studies and Craig Rehabilitation Hospital to evaluate the effectiveness of computer based risk assessment/feedback tools in reducing medical complications.

This Research Update column will present the progress and findings from these research projects over the next 5 years. We will review the Training and Dissemination Projects of this new RRTC in the next issue of *Pushin’ On.*
Stress

Effective interpersonal skills require good conflict management skills and the ability to listen and offer support, and everyone needs social support. People with spinal cord injury need someone to show them that "You are somebody and you have contributions to make in this life." Caregivers need to simply talk to someone. People in healthcare need support from colleagues and supervisors.

Your lifestyle can also influence how you deal with stress. For example, diet is important for overall good health. Having a religious or spiritual affiliation can help by giving you a sense of being connected to others and a sense of meaning. Meditation, relaxation skills and muscle relaxation are all ways for you to chill out and feel good.

Meaningful activities can help you handle stress. Exercise and other physical activities can boost your sense of confidence, your sense of competency and regulate your mood. People with a greater sense of control over what is going on in their life handle stress better. People who have a sense of optimism, hope and meaning in their life also cope better.

You need to find meaning in your life by deciding what is important for you, not what anyone else says it is. Set your own priorities. It is not necessary for people to agree with your decisions. Think about what you are about and why you do what you do. Know your priorities. This helps you distinguish what you are about, when to take action to get some work done or when you back away and have some fun.

Finally, remember the words of the great Alabama philosopher, Jimmy Buffet, "If you decide to run with the ball, just count on fumbling and getting knocked down a lot, but never forget just how much fun it is to run with the ball."

**WARNING SIGNS OF STRESS**

**PHYSICAL**

- Headaches
- Neck Tension
- Shoulder Tension
- Dizziness
- Fatigue
- Restlessness

**EMOTIONAL**

- Irritability
- Anger
- Depression
- Moodiness
- Aggression
- Frustration

**SOCIAL**

- Over Eating
- Avoiding People
- Excessive Dieting
- Increased Smoking
- Avoiding Tasks
- Increased Alcohol Use

**COGNITIVE**

- Can't Make Decisions
- Loss of Memory
- Loss of Creativity
- Loss of Concentration

If you are experiencing many of the warning signs of stress, you should seek professional assistance on the method of relieving stress that is right for you.

---

To Continue Receiving this *Pushin' On* newsletter . . . . . . . *Mailing List Update!*

1. If you are an **individual with spinal cord injury** and receiving this newsletter at the correct address and want it to continue - **DO NOTHING!** Only complete and return the form below if you have a change of address.

2. **ALL OTHERS. . . . Complete and return the information form below by May 1999.** If we do not hear from you, you will be deleted from the mailing list for *Pushin' On*.

**NAME:**

**ORGANIZATION:**

**ADDRESS:**

---

**Return to:** Training Office, Room 529
UAB Spain Rehabilitation Center,
1717 6th Avenue South
1530 3rd Avenue South
Birmingham, AL 35249-7330
Research Study Subjects Wanted- Participants are being sought for Constraint Induced Therapy to improve the function of the lower extremities in individuals with incomplete SCI. Subjects must be at least one year post injury, have some movement in legs at the hip and knee, be able to maintain unsupported sitting balance and meet additional criteria to qualify. For more information call Danna Kay King, PT at 205-975-9799.

Pain Research Subjects Wanted- UAB RRTC seeks volunteers for study on the effectiveness of two medications for SCI pain. Study begins over the next 2 months. Participants must be at least 1 year post-injury and have chronic pain of sufficient magnitude that intervention has been sought. For information contact J. Scott Richards, PhD at richards@sun.rehabm.uab.edu or 205-934-3454.

Telehealth Study Needs Volunteers- UAB RRTC seeks individuals with SCI and their family caregivers in the area of Birmingham, AL for in-home information service regarding adjustment to SCI and problem-solving skills. Participants only need touch-tone phone and television. All other equipment will be provided. For information contact Monica Kurylo, PhD at mkurylo@uab.edu or 205-934-3454.

Upcoming Teleconference- This Fall UAB will host a FREE 60 minute interactive telephone conference call on a topic relevant to secondary conditions of SCI for consumers with SCI, their families and rehabilitation service providers. Details will be announced in the next Pushin’ On and at http://www.spinalcord.uab.edu.

SCI Email Distribution- To be notified via email as new and updated SCI material becomes available, email klebine@uab.edu and type in the body of the email, "subscribe to SCI email distribution list."


For information on EatRight, UAB's comprehensive weight loss program, call 205-934-7053.


For additional information on nutrition and SCI health related topics, read


---

**Resources**

UAB-Spain Rehabilitation Center
RRTC Training Office, Rm. 529
1717 Sixth Avenue South
1530 Third Avenue South
Birmingham, AL 35249-7330

NONPROFIT ORG.
U.S. POSTAGE
PAID
PERMIT NO. 1256
BIRMINGHAM, AL