

## Nutrition and ALS

ALS increases your nutrition needs, especially the amount of calories needed to maintain your weight. Research has shown weight maintenance is important for maintaining strength and overall physical function. The progression of ALS symptoms has been associated with weight loss. Patients who lose more than 10% of their weight tend to have a faster progression of the disease. It is very important to maintain your current weight. In order to maintain your weight you may need to eat more frequently (meals and snacks) throughout the day. It is important to choose high calorie foods. Some suggestions are provided in this handout. The ALS Association provides some high calorie and easy to chew recipes on their website (<http://www.alsa.org/als-care/resources/publications-videos/factsheets/recipes.html>).

High Calorie Foods	
Grains	Bagels, pancakes/waffles, croissants, biscuits, muffins, granola, breakfast cereals with approximately 200 calories per serving
Fruits	Bananas, mango, canned fruit in syrup, sweetened applesauce, dried fruits
Vegetables	Avocado, olives, hummus, starchy vegetables- potatoes, corn, peas, lima beans. Add oil or butter in cooking for additional calories
Dairy	Heavy cream, whole milk, chocolate milk, cheese, full-fat yogurt, pudding
Meat/Beans	Salmon, tuna, mackerel, beef, lamb, pork, dark meat poultry, eggs, flax and chia seeds, nuts and seeds, peanut butter, nut butters (almond, cashew, walnut)
Fats/Oils	Vegetable oils, butter, sour cream, mayonnaise
Beverages	Milkshakes, smoothies, hot chocolate, fruit juice, oral supplements

Recent research has suggested various nutrients to be beneficial for patient with ALS. These include several antioxidants (lycopene, lutein, zeaxanthin, vitamins C and E, beta-carotene) omega-3 and omega-6 fatty acids, isoflavones and dietary fiber. Sources of these nutrients are listed below.

Lycopene	Tomatoes, tomato products, watermelon, grapefruit, apricots
Lutein	Spinach, broccoli, kale, corn, summer squash, orange juice, grapes, kiwi
Zeaxanthin	Leafy green vegetables
Vitamin C	Citrus fruits and juices, tomatoes, broccoli, green and red peppers
Vitamin E	Vegetable oils, nuts and seeds, leafy green vegetables, margarine
Beta-carotene	Carrots, sweet potatoes, winter squash, pumpkin, leafy green vegetables, cantaloupe, cherries, apricots, mango and papaya
Omega-3	Salmon, tuna, mackerel, flax and chia seeds, walnuts, canola oil, tofu
Omega- 6	Safflower, sunflower and corn oils
Isoflavones	Soy beans, soy protein, soy milk, tofu, flaxseeds, beans and lentil
Dietary Fiber	Whole grain products, fruits, vegetables, nuts and seeds, beans and peas
Other sources of antioxidants	Berries, apples, yellow onions, celery, green beans, parsley, thyme, dark chocolate, red wine, teas- green, white, black and oolong