desserts may also help with diarrhoea. However, if you are losing too much weight, this guideline may also need to be modified individually. If severe diarrhoea or constipation persists, contact a physician.

Constipation may also occur, due to weak and scarred muscles in the colon wall. Suggestions for relieving constipation are:

- 1. Drink water: 1.5 to 2 litres per day
- **2**. If possible, do some physical activity. Exercise stimulates movement of the bowels.
- **3.** Eat more fibre. Aim for 20 to 35 grams/day. Be sure to add fibre gradually into the diet. Fibre sources, especially insoluble fibre, include whole grain breads, whole grain cereals, fruit, vegetables, and legumes.

For those with Raynaud's, allow water to come to room temperature. Ask for water without ice. If you have swollen hands, continue drinking water. If you are on diuretics, you still need to drink plenty of water. Unless your doctor has told you to limit your fluids, keep drinking water.

Step 6: Get Enough Calcium

Every person needs enough calcium to build and maintain strong bones. Calcium is also important for healthy teeth, regulating your heartbeat, performing muscle contractions, and maintaining healthy blood pressure. If you don't supply your body with enough calcium from external sources, it takes what it needs from your bones. Calcium is important not only for the general population and especially for women, but it is even more important if you have scleroderma and are taking steroids. Steroid drugs such as prednisone and solumedrol can deplete your body's calcium stores and lead to osteoporosis (loss of bone density, which can lead to a host of physical ailments). Therefore, be sure to get plenty of

calcium from your food or by taking calcium supplements.

Step 7: Maintain Your Weight and Fight Malnutrition

Unintentional weight loss can be a problem. This can happen for any number of reasons. Some suggestions to combat weight loss are:

- **1.** Eat several times per day (4 to 6 or more times).
- 2. Try milkshakes with whole milk.
- **3.** Add calorie boosters such as peanut butter, cheese, whipped cream, ice cream, juice, nectar.
- **4.** Seek advice from a pharmacist regarding nutritional energy drink products

Some people are unable to keep up their weight, or may be unable to swallow, or may have severe oesophageal problems. Hospital admission may be required as various procedures are available.

Remember: the goal is always to keep you well-nourished.

Conclusion

It is important not just to learn what you should do for proper nutrition, but also how to apply these practices in daily life. We may hope that in the future there will be more scientific studies published on proper nutrition in scleroderma, and more articles and books on this important topic. If you are concerned about your food intake

and want more detail, you should make an appointment with a Registered Dietitian.

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EATING WELL

Nutritional Needs in Scleroderma

By Lise Gloede, Registered Dietitian

The purpose of this booklet is to assist people with nutritional concerns relating to scleroderma and to also ensure people continue to enjoy food, sometimes with dietary modifications. Importantly, this booklet is intended as a guide and if you require more individualised dietary information, please seek the professional advice of a dietitian.



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Since scleroderma can be manifested in different ways and each person may have differing nutritional needs, there is no one "diet for scleroderma."

This brochure will discuss nutritional therapy for mouth, oesophageal, and swallowing problems, calcium and fibre intake, and other ways of nutritional intake. There are many nutrition-related side effects in other parts of the body, such as kidney problems, that require nutritional intervention and modifications to what you eat.

Step 1: Food Preparation and Intake

The eating process starts with holding the food to prepare it, then gripping the food to get it into your mouth, and then follows the chewing and swallowing process. This is not always easy, especially if scleroderma has hardened the skin on your fingers and hands. If this problem hinders your food intake:

- **1.** Get kitchen equipment and utensils with thick rubber handles to aid in gripping.
- **2.** Try various types of cups and mugs until the size and handle configuration are the easiest to pick up.
- **3.** Stock up on frozen meals or prepared food when possible.
- **4.** If your joints are stiff and you are having trouble cutting, buy pre-cut fruit and vegetables.

Step 2: Swallowing (Mouth through Oesophagus)

Overproduction of collagen due to scleroderma can cause thickening and scarring of tissue. Weakened muscles can cause slow movement of food which is called "dysmotility." Difficulty in swallowing is called "dysphagia." This can also result from narrowing of the oesophagus. When these problems occur:

1. Eat slowly. Allow more time for eating, due to slower movement of food passing through.

- **2.** Chew well. Be careful not to take any food into your lungs.
- **3.** Eat soft or pureed foods (mashed potatoes, apple sauce). Moisten dry foods like bread or crackers by dipping them into liquids.
- **4.** Drink water or other fluids frequently and between bites to help the food go down.
- **5**. Blenderise foods, especially meats or vegetables. Add seasonings, broth, or margarine to thin to desired consistency.

Step 3: Moving Down the Oesophagus

GERD, or Gastro-Oesophageal Reflux Disease, can cause irritation in the œsophagus, the pipe that connects the throat area to the stomach. The muscles at the lower end of the oesophagus may weaken. This may let stomach acid which is normally present in the stomach backwash into the œsophagus, causing irritation or heartburn. This is called "acid reflux."

To reduce it, try the following:

- **1.** Decrease or eliminate the intake of alcohol, carbonated drinks, chocolate and caffeine, which can stimulate acid production in your stomach.
- **2.** Avoid highly acidic foods, such as citrus fruit, tomatoes, tomato products, and onions.
- **3.** Avoid fatty and greasy foods. Foods with high fat content stay in the stomach longer than lower-fat foods, increasing the likelihood of the food backing up into the œsophagus.
- **4.** Sit upright for 1 to 2 hours after eating, so gravity can help your food move downward. In other words, try not to eat just before lying down, napping, or going to bed at night.
- **5.** Eat smaller, more frequent meals (4 to 6 small meals per day versus 2 to 3 larger meals per day).
- 6. Do not eat 2 to 3 hours before bed.
- **7**. Raise the head of your bed 4 inches, using old phone books.

8. Keep a food diary to establish the foods that cause unsettling symptoms, this can also assist when visiting a dietitian or nutritionist.

Your physician may also prescribe medications to help neutralise the acid.

Step 4: The Stomach and Intestines

Sometimes food passes too fast or too slowly when moving from the stomach into the small and large intestines. Diarrhœa and its opposite, constipation, can be unpleasant side effects of scleroderma, when there is damage to the muscles of the small or large intestine.

For bowel problems in general, consider taking a multivitamin, especially if you are eliminating several foods (which are your normal source of most vitamins) from your usual diet. There are liquid multivitamins for people with swallowing difficulties.

Eating foods with some good bacteria or "probiotics" may also be beneficial. Probiotics are found in yoghurt. There are many products available which contain probiotics. Look on the label for "active or live yoghurt cultures." Also, the labelling information "Lactobacillus. Acidophilus and L. Reuteri" usually indicates live yoghurt cultures.

Diarrhœa is often due to weakened muscles of the gastrointestinal tract, antibiotics, or malabsorption (poor absorption of food). In some cases, foods that have soluble fibre may help with diarrhœa.

Soluble fibre sources include bananas, applesauce, apples, oatmeal and oat bran, and prunes. Avoid whole wheat bread and wheat germ, large quantities of raw vegetables, and raw whole fruits, other than bananas. Keep in mind that these soluble-fibre guidelines should be determined on an individual basis, based on what works best for you.

Avoiding high-fat foods, fried foods, and rich