



Nutrition Nuggets



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Nutrition for Pressure Sores & Muscle Wasting

Proper nutrition is critical for maintaining skin health and preserving lean body tissue. Both of these are common problems at the end of life, but much can be done to minimize the damage that can easily develop when a patient is bedbound and not taking in sufficient nutrients.

Pressure Sores

A skin ulcer is caused by unrelieved pressure that damages the outer layers of skin and underlying tissues. Unrelieved pressure reduces the circulation of blood to those areas. When nutrients and oxygen are reduced, the tissue begins to die, usually in two to three hours. However, the breakdown process sometimes begins in as little as one hour, especially in those who are paralyzed and in wheelchairs, as the force on the skin is greater.

The sore becomes red and painful and eventually turns purplish or ashen. Unrelieved pressure will result in an open wound. These develop over any area where skin is deprived of oxygen and blood flow due to pressure, lack of movement, or rubbing against the skin. Anyone who is bedbound, confined to a wheelchair, or unable to change positions without help can easily develop pressure ulcers.

Increased Risk

When skin is damp or wet, it is more vulnerable to breakdown. Therefore, those who have lost bowel or bladder control are at increased risk in addition to persons who perspire freely. Keeping skin clean and dry is of the utmost importance.

A healthy diet, adequate in calories, protein and a full range of nutrients, protects the skin and guards against breakdown. Those who are most likely to develop pressure sores are often the most malnourished.

Muscle Wasting

The body can shift to breaking down the proteins in muscle tissue for energy when there is a high demand for calories. This is frequently present in cancer, infection, surgery, severe illness, injuries, or wounds. The subsequent loss of muscle tissue has many negative effects on the body, including:

- Weakening the immune system
- Impairing wound healing
- Decreasing strength and energy
- Increasing susceptibility to pressure ulcers
- Increasing risk of infections

Recommendations for Wound Healing and Preserving Lean Tissue

- 1. Increase intake of protein, calories and essential nutrients.** When the body has shifted to breaking down lean body mass to meet demands for energy and repair, it is difficult to consume sufficient protein and calories. Small, frequent meals and high-calorie snacks are recommended. Smoothies and nutritional drinks can be helpful, as liquids require less energy both to consume and to digest.
- 2. Omega-3 Fatty Acids.** Studies in animals and humans have indicated that supplementation with the essential omega-3 fatty acid, eicosapentanoic acid (EPA) reduces inflammation and muscle damage. Supplementation of 1.4 to 2 grams daily for at least four weeks may lead to increased body weight and gain of lean body mass. Seek the advice of a physician if taking anticoagulant medication, as EPA can have a slight blood thinning effect.
- 3. Amino Acids.** Amino acids are the cellular building blocks of muscle tissue. Arginine and glutamine play key roles in the growth and repair of body tissues as well as in maintaining the strength of the immune system. The amino acid leucine has been clinically demonstrated to reduce muscle breakdown. B-hydroxy-B-methyl butyrate (HMB) is generated when the body uses leucine. HMB may help in combating protein breakdown, assist in re-building muscle, and improving strength.

Summary

Pressure sores and muscle wasting have some related nutritional issues and respond to similar dietary therapies. Both involve breakdown of tissue and both can rapidly worsen if treatment is not forthcoming. With aggressive therapy and dietary supplementation, the outcome can be greatly improved.

Resources for Pressure Sores and Muscle Wasting

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