

Low salt diets a danger for the elderly

Hyponatremia

The elderly are particularly at risk from a diet low in salt. Hyponatraemia (low sodium level in the blood) is dangerous and the symptoms, which start with tiredness, difficulty in concentrating and a loss of balance can develop into confusion and even coma if left untreated.

Physiology

As we age our total body water decreases due to a loss of muscle tissue. In addition the ability of the kidneys to reabsorb sodium slowly declines. These and other physiological changes that occur as part of the ageing process together with an increased risk of general illness and the resulting medication, all have the effect of making older people more susceptible to an electrolyte and water imbalance. It is also common that the diet decreases in quality due to circumstances, such as isolation, and a decline in physical capability. Nutritional imbalance can easily lead to dehydration and hyponatraemia.

Blood pressure

Many elderly people deliberately restrict their intake of salt because of a misapprehension that it causes high blood pressure. There is however, no evidence to support this view and recent research has shown that reducing salt intake makes little or no difference to the resulting blood pressure (see related fact sheet Salt & Blood Pressure).

Salt intake

A recent paper¹ suggests that polypathia (a multiplicity of illnesses) in the elderly is frequently associated with an inadequate supply of sodium. It highlights the importance of improving fluid intake and not restricting salt intake. Common conditions such as diarrhoea contribute to the possibility of developing a sodium deficiency and mean it is even more vital that older people are careful not to embark on a low salt diet.

Conclusion

For the elderly it is important to improve fluid intake and not to restrict salt intake. Neither general salt restriction nor sodium chloride substitution is necessary in most elderly people.

(See our other related factsheets: Salt & Blood Pressure, Salt & Physiology, Salt & Pregnancy, Salt & Food Production)

¹ Füsigen I: Disorders of water and sodium metabolism in older patients European Journal of Geriatrics, (03/04)2004