



Low Salt Diets and Hyponatremia

Most Assisted Living Facilities for the Elderly Employ Low-Salt Diets

Long-term Low-Salt Diets Can Lead to Asymptomatic Hyponatremia

Major Dietician Associations & HHS Support SI Stance Against Low-Salt Diets

SI Program to Promote Regular Appetizing Tasty Meals



The Shleser Letter - 2007

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The Editor
Reader's Digest
125 Stanley St.
Montreal, Quebec
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*Send
to
Dr. H. Shleser*

Feb. 18,

DR ALDERMAN

Dear Editor:
Please find enclosed my article on the relationship between increased hip fractures and low-salt diets. This association is frequently found in seniors' care facilities all over North America. This salt-reduced diet causes hyponatremia (low blood sodium level) often leading to other dangerous medical conditions such as confusion and decreased consciousness. The high number of falls in elderly people is an unfortunate outcome

I believe, as a Canadian cardiologist who for 65 years has examined and treated elderly patients, that falls and subsequent fractures would dramatically decrease if seniors were given regular diets in place of the current low-salt regime.

Thank you,

Isaac Shleser
Isaac Shleser
MD, FRCP(C), FACP

"I believe, as a Canadian cardiologist who for 65 years has examined and treated elderly patients, that falls and subsequent fractures would dramatically decrease if seniors were given regular diets in place of the current low-salt regime."

"After four or five months of living in the retirement residence (on a low salt diet), I gradually found that my appetite was diminished and I unknowingly become a case of chronic dehydration and hyponatremia (salt deficiency)."

"On January 23, 2003 I fell and broke my hip. After it was repaired the surgeon told me that I must use a walker.... It was six months later when I fell again, holding the walker, and broke my left shoulder." "From my practice I realized that this deterioration of my physical state was not a normal progression of old age...dehydration and hyponatremia produced all of these changes. Life is not possible without water or air, but a miserable existence can be had without salt."

"Spending your golden years in a retirement home with a low salt diet will convert your last years to a long chronic illness."

Spending your golden years in a retirement home with a low salt diet will convert your last years to a long chronic illness.

"No more and by a sleep to say we end. The heart aches and the thousand natural shocks the flesh is heir to - 'tis a consummation devoutly to be wished".

- William Shakespeare

This is an autobiography. I was born on September 3, 1913 in Toronto. I moved into a retirement home in September of 1999. All of the above derangements began in September of 2000. I fell and broke my hip in January of 2003. I fell again and broke my left shoulder in May '03. My anemia appeared in February '04 and I was in the Mt. Sinai hospital and was transfused 4 units of blood. I have been using salt daily ever since I discovered its absence. There has been some return of my appetite and an improvement of somnolence and lethargy. By walking 30 minutes, three times daily with my walker, I have managed to avoid the wheelchair and being confined to a bed.

Salt is the spice of life!

All references from "The Merck Manual of Geriatric s", Third edition 2000.

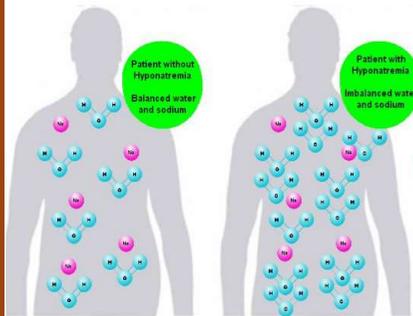
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What is Hyponatremia?



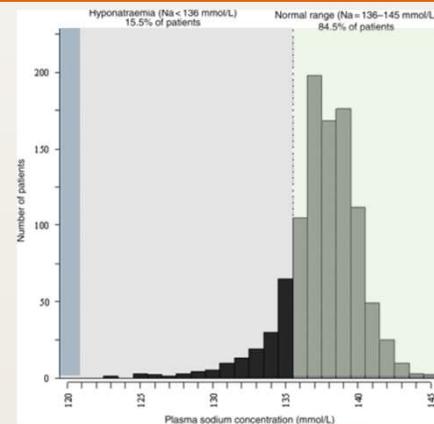
Normal plasma sodium levels: 136–145 mmol/l or 3 – 3.3 g sodium/l

Hyponatremia occurs when sodium drops below 135 mmol/l, (<3 g/l)

Mild “Asymptomatic” form occurs when Na runs between <125–135 mmol sodium/l or 2.9- 3.0 g/l

Severe Hyponatremia* occurs when Na drops below 120 mmol/l, (<2.8 g/l)

*A Medical Emergency



Acute Hyponatremia and the Brain

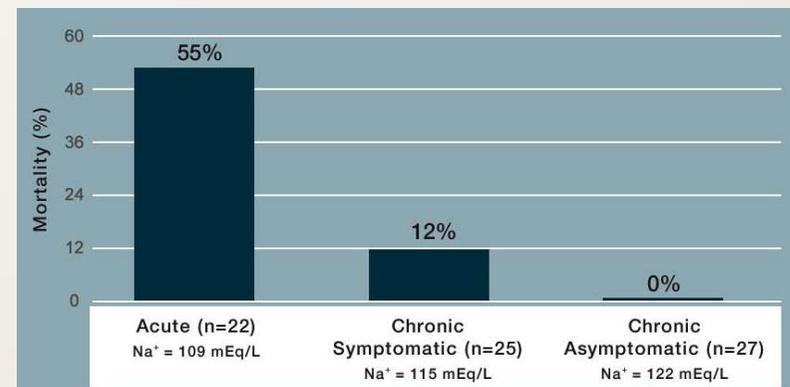
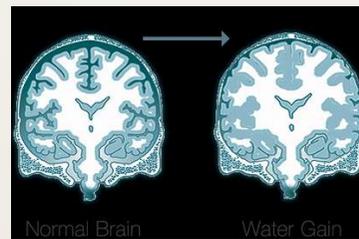
Blood-Brain Barrier Prevents Na Exchange

H₂O Crosses BBB, Enters Brain Cells to Equilibrate Tonicity

Brain Swells Up Against Limiting Skull Case

Emergency Treatment Required to Shrink Brain to Normal

Neurological Damage and Death Common



A Form of Starvation

Asymptomatic hyponatremia is an *inevitable* accompaniment of *long periods on a low salt diet*. Although this disease may seem capricious with regard to the speed of its onset and the symptoms of its presence, *no one can avoid it who lives on a low salt diet for several months*. We store the bulk of our sodium in skin and bone tissue and that may act as a reservoir for some time, but it does not last forever. Despite what many believe, asymptomatic hyponatremia is not a disease someone catches, such as pneumonia or yellow fever or typhus. *It comes about when the essential nutrient, sodium, ceases to be supplied to the body in sufficient quantities.*

By its very nature, it is a form of essential nutrient starvation.

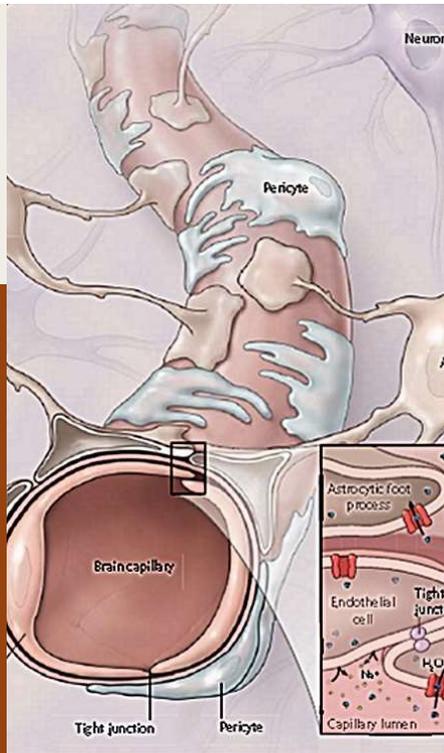


Is There Such a Thing as Asymptomatic Hyponatremia?

Mild or “Asymptomatic” Hyponatremia is not as Evident as Acute Hyponatremia

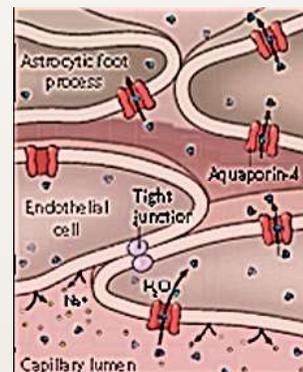
Osmotic Differences Represent a Continuum and Abnormally Low Plasma Na Concentration Will Always Cause H₂O to Enter Brain Tissue to Attempt Osmotic Equilibration

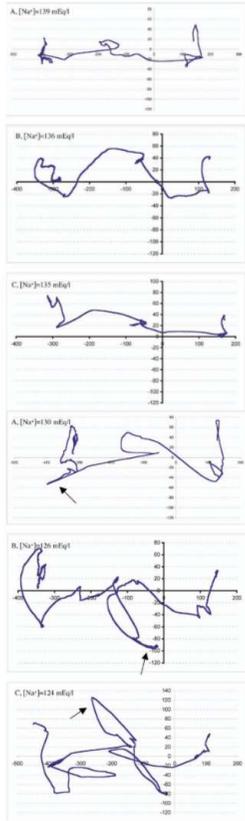
Symptoms May be More Subtle and Take Longer to Be Evident than the Acute form, but Asymptomatic Hyponatremia is not Asymptomatic



and the Neurovascular Unit. The tight junctions are lined by astrocytic foot processes expressing aquaporin-4, which is permeable to water but not to sodium. Astrocytes, which are spatially and functionally associated with neurons, pericytes, and microglia, provide the brain with its first line of defense against sodium disorders.

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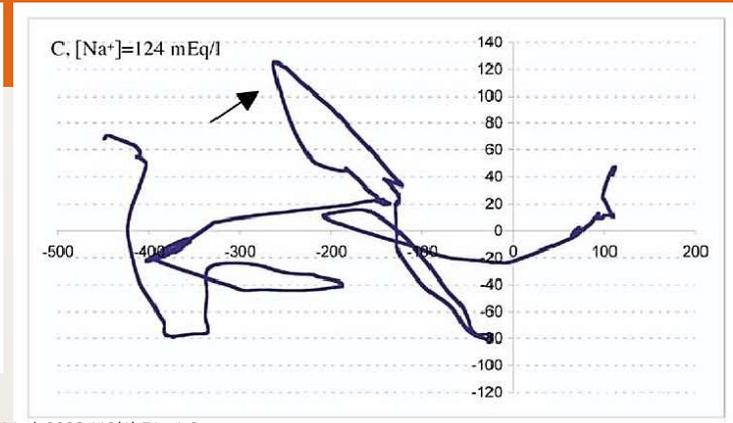
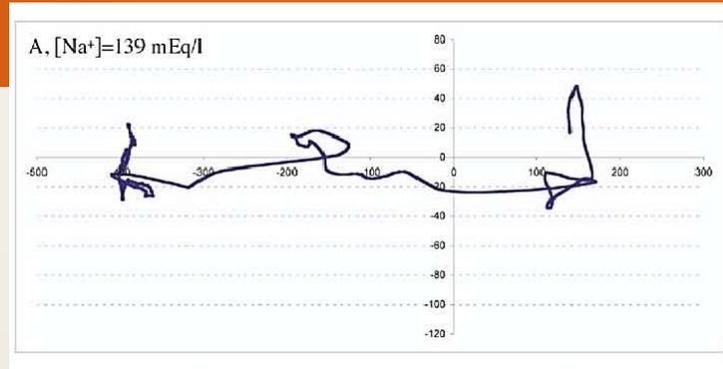
Symptoms of Asymptomatic Hyponatremia

67-Fold Higher Risk of Hip Fractures ¹

Gait Disturbances and Decreased Response Time, Mimicking Effects of Alcoholic Excess ¹

Increased Risk of Bone Fractures in Ambulatory Elderly Patients ^{2, 3}

Osteoporosis in elderly women with borderline hyponatremia⁴



¹Renneboog B, Musch W, Vandemergel X, Manto MU, Decaux G. Mild Chronic Hyponatremia is Associated with Falls, Unsteadiness, and Attention Deficits. *Am J Med.* 2006;119(1):71.e1-8.

²Gankam Kengne F, Andres C, Sattar L, Melot C, Decaux G. Mild hyponatremia and risk of fracture in the ambulatory elderly. *QJM.* 2008 Jul;101(7):583-8. doi: 10.1093/qjmed/hcn061. Epub 2008 May 13.

³Hoorn EJ, et al. Mild hyponatremia as a risk factor for fractures: the Rotterdam Study. *J Bone Miner Res.* 2011 Aug;26(8):1822-8. doi: 10.1002/jbmr.380.

⁴Carbone L, Johnson KC, Huang Y, Pettinger M, Thomas F, Cauley J, Crandall C, Tinker L, LeBoff MS, Wactawski-Wende J, Bethel M, Li W, Prentice R. Sodium Intake and Osteoporosis. Findings From the Women's Health Initiative. *J Clin Endocrinol Metab.* 2016; 101(4):1414-21. doi: 10.1210/jc.2015-4017. Epub 2016 Feb 10.



Assisted Living/Nursing Home Stats

- More than 2 million adults over the age of 65 living in assisted living/nursing home facilities
- 50 - 75 % of elder patients suffer ~ 2.6 falls each year. This rate is more than double the rate of falls which occur for elders living in the general community
- CDC estimates >5 % of elders, 65 and older, are assisted living residents. But these patients make up > 20 percent of the deaths resulting from falls.
- >2,000 elderly patients DIE each year as a result of nursing home falls!



And much of this results from the practice of implementing a low-salt diet policy!



New Dining Practice Standards

Pioneer Network
Food and Dining Clinical Standards
Task Force



A Rothschild Regulatory Task Force

AUGUST 2011

Is there a Standard Practice for Diets in Assisted Living Facilities?

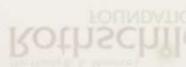
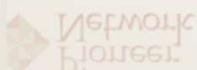
Yes!

One has been in place since 2011, endorsed by the following organizations:

- American Association for Long Term Care Nursing (AALTCN)
- American Association of Nurse Assessment Coordination (AANAC)
- American Dietetic Association (ADA)
- American Medical Directors Association (AMDA)
- American Occupational Therapy Association (AOTA)
- American Society of Consultant Pharmacists
- American Speech-Language-Hearing Association (ASHA)
- Dietary Managers Association (DMA)
- Gerontological Advanced Practice Nurses Association (GAPNA)
- Hartford Institute for Geriatric Nursing (HIGN)
- National Association of Directors of Nursing Administration in Long Term Care (NADONA/LTC)
- National Gerontological Nursing Association (NGNA)



A Rothschild Regulatory Task Force





Center for Clinical Standards and Quality/Survey & Certification Group

Ref: S&C: 13

March 1, 2013

State Survey Agency Directors

Director
Survey and Certification Group

CT: Information Only: New Dining Standards of Practice Resources are Available Now

Memorandum Summary

New Dining Practice Standards: An interdisciplinary task force, sponsored by the Pioneer Network and the Rothschild Foundation, has released new dining practice recommendations for nursing home residents.

Expanding Diet Options for Older Individuals: Research has indicated that many older individuals may not need to be limited to very restrictive diets, pureed foods, thickened liquids even though they may have many chronic conditions. Conversely, restricting food choices can result in loss of appetite and eventual weight loss.

Surveyor Training Video: The Centers for Medicare & Medicaid Services (CMS) is providing a new 24-minute video training product to all survey agencies with information on new dining standards of practice and therapeutic diets. This video, which is an introduction to the New Dining Practice Standards, was developed by several national professional organizations.

An interdisciplinary task force composed of national clinical organizations that set standards for nursing home care has released a document expanding dining, diets, food consistency, thickened liquid feedings. This task force included 12 organizations, representing clinical professionals in developing diet orders and providing food service (including physicians, nurses, dietitians and physical therapists, pharmacists, dietitians among others). The task force was formed in 2011 as a recommendation from the 2010 CMS/Pioneer Network symposium on dining. Also participating were CMS, the Food and Drug Administration and the Center for Disease Control.

Research presented revealed little benefit to many older individuals with chronic conditions in dietary sugar and sodium, as well as little benefit from tube feedings, pureed foods, thickened liquids. The new standards recommend to clinicians and prescribers that a thickened liquid be the default with only a small number of individuals needing restrictions.

CMS surveyors review Quality of Care compliance based on standards of practice, and we want to ensure that all long-term care surveyors and supervisors are made aware of these important changes to long-standing standards and practices. Therefore, we are presenting this surveyor training video to introduce the 10 categories of changes. Individualization of care and care planning after a diet change are essential elements of any care plan.

What about Government Endorsement?

The New Dining Standards have been endorsed by the Center for Clinical Standards and Quality/Survey & Certification Group. Department of Health & Human Services, Centers for Medicare & Medicaid Services in 2013.

These Dining Standards for Nursing home/ assisted Living Facilities are now fully in place.

Low-salt diets for those that don't need them may be Medical Malpractice.



Center for Clinical Standards and Quality/Survey & Certification Group

Ref: S&C: 13-13-NH

DATE: March 1, 2013

TO: State Survey Agency Directors

FROM: Director
Survey and Certification Group

SUBJECT: Information Only: New Dining Standards of Practice Resources are Available Now

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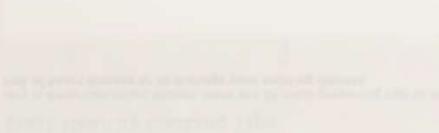
Heart-Healthy Cooking Tips

February is American Heart Month. Here are 25 meal-preparing tips to lower your risk of heart disease or to manage your existing disease.

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What was the main comment of the Largest Dietary Organization?

American Dietetic Association (ADA) now the Academy of Nutrition and Dietetics - largest organization of food and nutrition professionals, over 100,000 credentialed practitioners

“The relationship between congestive heart failure, blood pressure, and sodium intake in the elderly population has not been well studied. The American Heart Association recommends that older adults attempt to control blood pressure through diet and lifestyle changes and recommends a sodium intake of 2 to 3 g/day for patients with congestive heart failure. However, a randomized trial of adults aged 55 to 83 years found that a normal-sodium diet improved congestive heart failure outcomes. **A liberal approach to sodium in diets may be needed to maintain adequate nutritional status, especially in frail older adults.**”

This open rejection of establishment dogma is the direct result of a close interaction and long communication and (follow-up) with the Salt Institute.



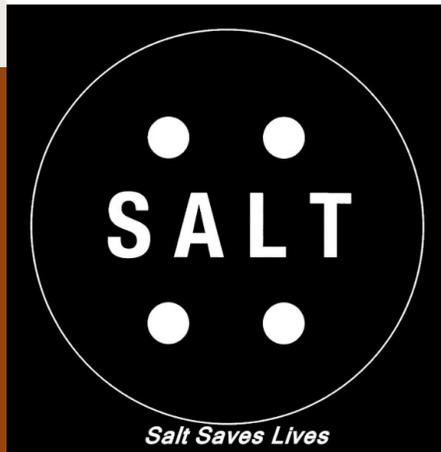
Where do we go from here?

The Salt Institute is producing a brochure for Nursing Home Managers and Practitioners informing them of the New Dining Practices and their importance.

This will be followed up by a lecture series to Nursing Home/Assisted Living Facility Association meetings to promote the new practices.

The goal is to prevent the elderly from:

“Spending their golden years in a retirement home with a low salt diet that will convert their last years to a long chronic illness”



The Elderly Should Savor Life



Thank You