

# Summary

*Public Event Centre on Aging and Mobility – February 12th 2013*



## Active and Strong: Muscle Health at higher Age

350 Seniors attended the DO-HEALTH public event at the Aula of the University of Zurich on February 12th 2013, despite snow and ice! We thank the participants of the event for their excellent questions and coming to the Aula at the University of Zurich despite challenging weather conditions!

Here is the summary of the presentations:



Lecture

Summary Message

1 **Dr. med. Daniel Grob, MHA**

*Medical Director City Hospital Waid,  
Chief Acute Geriatric Care, City Hospital Waid  
Co-Director Centre on Aging and Mobility,  
University of Zurich and City Hospital Waid*



The event was opened by **Dr. Daniel Grob**.

Dr. Grob refers to Winston Churchill who on September 19th 1946 gave his famous speech "Let Europe arise" in this very room at the Aula of the University of Zurich. Today, so Dr. Grob, Churchill would be proud to say "Let DO-HEALTH arise" for the health of seniors in Europe. Churchill's statement "no sports" as a strategy of healthy ageing, as often cited in the German literature, cannot be confirmed in the English literature.

In fact, so Dr. Grob, Winston Churchill was a sportsman throughout his younger age and enjoyed horse riding even at high age.

«Let  arise «



Lecture

Summary Message

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**Prof. Dr. med. Hannes B. Stähelin**

*Prof. Emeritus, Chair of Geriatrics,  
University of Basel  
Expert DO-HEALTH Functionality at older  
age*



**Prof. Hannes Stählin** explains that a healthy nutrition, rich in protein, vegetables and fruits, is key in muscle health at higher age. He also explained that muscle strength declines with age, although with significant individual variation.

Notably, so Prof. Hannes Stähelin, muscle health requires mobility as a pivotal stimulation, and eating a protein rich food after exercising (walking, strengthening exercises,..) is especially valuable.

Important risk factors for muscle wasting and weakness are: immobility, vitamin D deficiency, low dietary protein intake, a diet poor in fruit and vegetable intake, chronic inflammation, and stress (high cortisol levels).

Lecture

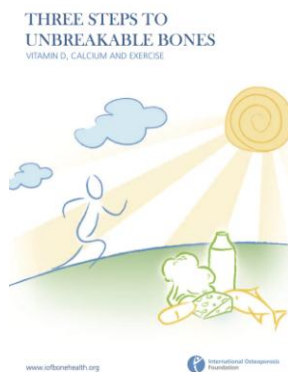
Summary Message

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**Prof. Dr. med. Robert Theiler**

*Chief of Rheumatology, Triemli City Hospital  
Zurich*

*Expert DO-HEALTH Training*



**Prof. Robert Theiler** states that maintaining and improving muscle strength is a central therapeutic target in the prevention and treatment of osteoporosis at higher age.

The prevention of falls, so Prof. Theiler, is key in the prevention of hip and other fractures at older age. Therefore staying active and avoiding immobility is a pillar of osteoporosis prevention.

Simple strategies that can be included in everyday life are: taking stairs instead of elevators, walking short distances instead of taking the car, and brushing teeth on one leg (holding on to the wall for safety). Sports activities that were successful in fall reduction are dancing, TaiChi, and strength training (legs and arms). Guidelines recommend to do these activities 3 times per week over 30 minutes that support strength and balance.

Prof. Theiler cautions that seniors with acute fractures or frail seniors should start a mobilisation and training program always under professional supervision of a physiotherapist.

Lecture

Summary Message

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**Prof. Dr. med. Walter Dick**

*Prof. Emeritus, Chair Orthopedic Surgery,  
University of Basel*

*Expert DO-HEALTH Fracture Assessment  
and Joint Replacement*




**Prof. Walter Dick** outlines fracture risk at higher age.

At age 50, every second woman and every 5th man, have to expect an osteoporotic fracture in their future years of life. The most frequent and most severe fractures at age 75+ are hip fractures and the primary risk factor for a hip fracture is a fall.

Prof. Dick confirms that the recovery after a fracture or joint replacement critically depends on muscle strength before surgery.

Thus, keeping mobile every day is critical. Enjoy being active! This can be gardening, walking with a friend, or betting with your grandchild on the steps needed to get to the opera or the soccer field (buy a inexpensive step watch), or dancing.

Prof. Dick also recommends supplementation with 800 IU vitamin D per day according to current guidelines. This is important as vitamin D deficiency is very common in seniors and evidence shows that vitamin D supplementation with 800 IU per day can prevent every third fall and hip fracture[1-4], as vitamin D has a double benefit on muscle strength and bone density.

Lecture	Summary Message
<p><b>5 Prof. Dr. med. Heike A. Bischoff-Ferrari, DrPH</b>  <i>Director, Centre on Aging and Mobility, University of Zurich and City Hospital Waid</i>  <i>Coordinator and Principal Investigator DO-HEALTH</i></p> 	<p><b>Active and Strong with DO-HEALTH</b></p> <ul style="list-style-type: none"> <li>• <b>What is DO-HEALTH?</b>                      DO-HEALTH is the largest ageing study to prolong healthy life expectancy in Europe. The study tests three promising strategies on healthy ageing:  <i>Vitamin D</i>  <i>Omega-3 Fette</i>  <i>und ein einfaches Heim Trainings-Programm</i></li> <li>• <b>Why DO-HEALTH?</b> <ul style="list-style-type: none"> <li>○ Europes future depends increasingly on the senior segment of the population</li> <li>○ Therefore health at older age becomes a central target of European societies</li> <li>○ Health at older age at the individual level is related to quality of life and independence</li> </ul> </li> </ul> <p>Prof. Heike A. Bischoff-Ferrari introduces the DO-HEALTH study and invites all seniors age 70+ living in the community to participate in the study to support health at higher age. See this website.</p>

**Are you 70 years or older, mobile and living independently at home?**

If so, we invite you to participate in a **clinical study** with **Vitamin D3** and **Omega 3-fatty acid supplements (marine algae)** and a **home exercise program**. Our aim is to investigate the role of these simple strategies in the prevention of chronic disease at older age. In particular, we are interested in the prevention of fractures and falls, functional decline, high blood pressure, cognitive decline and pain from osteoarthritis.

**The study will take place at the Universities in Zurich, Basel, Geneva, Toulouse, Innsbruck, Coimbra, and Berlin.** The study duration will be 3 years and during the study we will ask you to attend 4 full-day clinical visits in our study centre (one per year) and we will call you by phone for a 30-minute interview every 3 months. Collected data will be kept strictly confidential. Public transportation cost will be reimbursed. **Your general practitioner will be further on responsible for your medical care beyond the framework of this study.**

**Are you interested?** For more information, please call the recruitment center in your city:

Zurich: (+41) 044 366 27 41 (Ms. M. Leuenberger); Basel: (+41) 061 326 47 51 or 061 326 47 52 (R. Armbruster/L. Flury/T. Damm); Geneve: (+41) 022 372 99 74 (Ms. F. Merminod); Toulouse: (+33) 0561 77 64 70 (Ms. A. Milhet); Innsbruck: (+43) 051 2504 80241 (Ms. C. Ortner); Coimbra: (+351) 914 345 404 (Dra. C. Duarte); Berlin: (+49) 30 8445 41 17 (M. Kalbow / H.Profittlich)

**Please note that some conditions will not allow you to participate in the study:** taking more than 1000 IU vitamin D per day, hemiplegia, severe kidney or liver disease, parathyroid disease, granulomatous disease (i.e. tuberculosis), epilepsy, M.Paget; or in the last 5 years: history of cancer (other than non-melanoma skin cancer), myocardial infarction, angina pectoris, stroke or transient ischemic attack.

We thank the sponsors of the Public Event “Active and Strong: Muscle Health at higher Age”



#### Literature

1. Bischoff-Ferrari, H.A., E.J. Orav, W.C. Willett, P. Meunier, R.A. Lyons, P. Lips, L. Flicker, J. Wark, R.D. Jackson, J. Cauley, H. Meyer, M. Pfeifer, A. Avenell, H.B. Staehelin, J. Henschkowski, R. Theiler, and B. Dawson-Hughes, *A pooled analysis of vitamin D dose requirements for fracture prevention*. New England Journal of Medicine; July 5th 2012, 2012.
2. Bischoff-Ferrari, H.A., B. Dawson-Hughes, H.B. Staehelin, J.E. Orav, A.E. Stuck, R. Theiler, J.B. Wong, A. Egli, D.P. Kiel, and J. Henschkowski, *Fall prevention with supplemental and active forms of vitamin D: a meta-analysis of randomised controlled trials*. BMJ, 2009. **339**(1): p. 339:b3692.
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4. Bischoff-Ferrari, H.A., W.C. Willett, J.B. Wong, A.E. Stuck, H.B. Staehelin, E.J. Orav, A. Thoma, D.P. Kiel, and J. Henschkowski, *Prevention of nonvertebral fractures with oral vitamin D and dose dependency: a meta-analysis of randomized controlled trials*. Arch Intern Med, 2009. **169**(6): p. 551-61.