

## CALCIUM AND VITAMIN D SUPPLEMENTATION PREVENTS OSTEOPOROTIC FRACTURES

Inadequate dietary intake of calcium and vitamin D insufficiency lead to reduced calcium absorption. This negative calcium balance leads to an increased risk of fragility fractures.

This situation is common in elderly people who reduce their dietary intake of calcium and have a chronic lack of exposure to sunlight with a low consumption of vitamin D foodstuffs. These insufficiencies are particularly prevalent in old people living in nursing homes, but is also known to exist in winter in about 50% of the elderly at home. Surprisingly it also occurs in about 15% of adults in countries where dairy products are not fortified with vitamin D.

Two large 3 year controlled trials in elderly ambulatory subjects living either in nursing homes<sup>1</sup> or at home<sup>2</sup> with a mean calcium intake lower than 800mg/day, have recently shown that a supplementation of their diet with a combination of calcium (500 or 1200 mg/day) and vitamin D3 (700 or 800 IU/day) reduced bone loss and, more importantly, reduced the incidence of non-vertebral fractures<sup>2</sup>, particularly of hip fractures<sup>1</sup>.

At these doses calcium and vitamin D are extremely well tolerated and do not require biochemical monitoring. Early prevention of bone loss with HRT or other antiresorptive agents is always desirable however a later prevention of fractures with supplementation of vitamin D and calcium is efficacious, safe and cost effective.

A systematic prevention of hip fractures in elderly people living in nursing homes with vitamin D and calcium should be recommended and adopted by Health Care Providers. The prerequisite condition before prescribing any other anti-osteoporotic drug is to correct any deficit of calcium intake and any low vitamin D status by appropriate supplements. The recommended daily intakes for bone health after 50 years of age are 1200mg for calcium and 400-600 IU for vitamin D.

*Professor Pierre J. Meunier*

<sup>1</sup> MC Chapuy et al. N Engl J Med, 1992, 327, 1637 and BMJ, 1994, 308, 1081.

<sup>2</sup> B Dawson-Hughes et al. N Engl J Med, 1997, 337, 670.



## NEW HORIZONS IN OSTEOPOROSIS PREVENTION & TREATMENT

Fears of the adverse effects of long term HRT usage mean that an alternative treatment for osteoporosis protection would be welcome. Recent studies suggest that selective estrogen receptor modulators (SERMs) may be useful in preventing bone loss, reducing cholesterol concentrations, and perhaps in reducing the incidence of heart disease without the risk of developing uterine or breast cancers. Data from clinical studies on Raloxifene, a new SERM, show that it has significant clinical potential. It acts as an estrogen in bone and the cardiovascular systems but as an antiestrogen in the breast and does not cause uterine bleeding. Subject to European Regulatory Approval, Raloxifene could be available towards the end of 1998.

Osteoporosis is a well known side-effect of long term corticosteroid use. Results recently published in the New England Journal of Medicine show that intermittent etidronate therapy maintains bone mass and prevents fractures resulting from corticosteroid use. This treatment is associated with an 85% reduction in the proportion of post-menopausal women with new spinal fractures. The second year of this trial will further test the safety and efficacy of etidronate in prevention of corticosteroid-induced osteoporosis.

3 year interim results of the PROOF (Prevent Recurrence of Osteoporotic Fractures) 5 year study show that calcitonin-salmon nasal spray (CTNS) reduces the risk of new spinal fractures in postmenopausal women with established osteoporosis. Previously shown to increase spinal bone density, the data showed that the incidence of vertebral fracture among those treated with CTNS at the dose of 200 IU/day over a 3 year period was 37% lower than the placebo group.

Results of the spinal fracture arm of the Fracture Intervention Trial (FIT) show that all-cause hospitalizations were reduced by 20% over a period of 3 years in the group randomised to receive alendronate relative to the placebo group. The trial concludes that fractures signal an increased risk for subsequent all-cause hospitalisations.



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## Feedback & subscription

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## EFFO Mission

- To support national osteoporosis societies in order to maximise their effectiveness
- To increase the awareness and understanding of osteoporosis
- To motivate people to take action to prevent, diagnose and treat osteoporosis

## Letter from the Editor



Dear Readers,  
 "Alternative medicine" is a recurring topic in medical practice today. We have highlighted this in the Controversies section however, not so long ago, "lifestyle changes" were also considered "alternative". Now scientifically proven, lifestyle changes can be described as effective means of helping to prevent osteoporosis, as seen in our Lead Story.

Osteoporosis treatment is still an issue that must be addressed at the highest levels. We are delighted that the European Commission has made the first step in recognising osteoporosis but it is scandalous that the majority of patients still go untreated. Vertebral fractures are as painful as some of the severe symptoms of heart disease.

Great progress has been made in the osteoporosis treatment field, Professor Herbert Fleisch being a significant contributor. A bisphosphonate pioneer, Dr Fleisch has witnessed the translation of his work into a new class of therapeutic agents. A founder and trustee of EFFO, Herbert Fleisch dragged osteoporosis treatment into the spotlight. I am sure Bern University in Switzerland will miss him greatly in his retirement but the good news for EFFO is that he will remain on the board as a much valued treasurer and advisor.

Yours sincerely,

Helmut Minne

## BONE DENSITY IMPROVED BY CHANGES IN LIFESTYLE

### Jogging can be beneficial to bone density

A recent paper in the Journal of Bone & Mineral Research by Wendy Kohrt et al found that post-menopausal women, aged between 60–74 years, can increase BMD at clinically relevant sites through exercise training programs that introduce stress to the skeleton. The study compared two training programmes, ground-reaction (i.e. walking, jogging, stairs) or joint-reaction forces (i.e. weight lifting, rowing). Although they both resulted in similar improvements at several sites, only the ground-reaction training programme showed an increase in bone mineral density at the hip.

As the hip is the fracture site associated with a high degree of disease and death, exercises that generate ground-reaction forces appear to be more beneficial for the prevention of osteoporosis. Contrary to previous reports, jogging in moderation can now be recommended for bone health. It remains to be determined whether the maximum benefit would be seen by employing a training programme that includes the two types of exercises.

An appropriate exercise programme tailored to each individual should be designed in collaboration with a general practitioner.

### Support groups reduce anxiety and increase bone density

Support groups are a valuable source of information for osteoporosis sufferers and their families. Regular attendance at a sup-

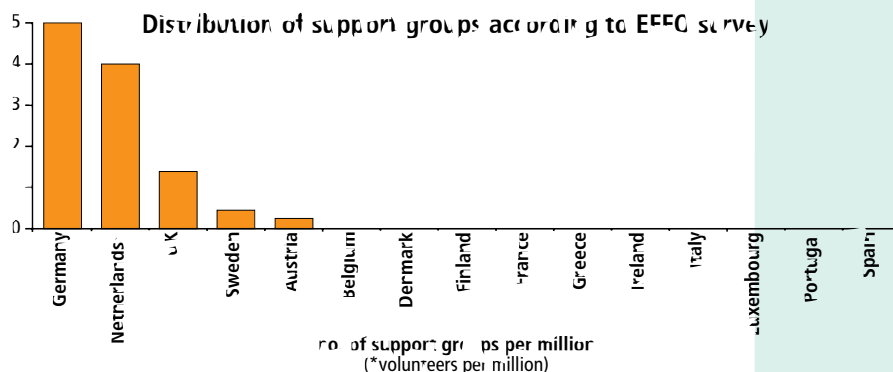
port group can help osteoporosis sufferers cope with the practical and emotional aspects of their disease thereby enabling them to maintain independence. Results of a recent German study by Seelbach show that members of an osteoporosis support group had a reduction in anxiety level and a significant rise in bone density.

EFFO is currently encouraging the establishment of new support groups throughout Europe. Feedback from a recent EFFO national society survey revealed that although support groups are particularly well formed in Germany and the UK, they are limited elsewhere in Europe. A few national societies do provide some of the services of a support group, for example "Osteoporosis Classes" in Sweden and "Sufferer Supporters" in the Netherlands.

By helping patients avoid hospitalisation and institutional care, a network of support groups could reduce the considerable burden of osteoporosis on the current health care system. However, the creation of an environment where osteoporosis self-help groups can flourish and offer the maximum benefit to the ever increasing numbers of osteoporosis patients throughout Europe can only be achieved with financial support from governments and encouragement from healthcare authorities.

**Even in the best served countries, the majority of sufferers have no access to a support group.**

Distribution of support groups according to EFFO survey

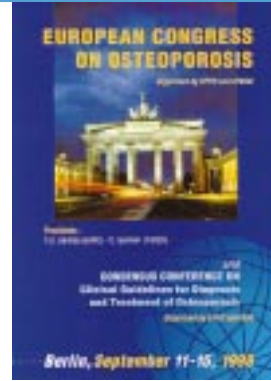




EFFO's new brochure



Advanced Training Course on osteoporosis



Announcement of European Congress on Osteoporosis

board) and there is ample opportunity for discussions with them. This course is unrivalled in Europe and highly recommended for industry delegates.

The European Congress on Osteoporosis will take place in Berlin from September 11th to 15th 1998. Organised jointly by EFFE and IFSSD, this congress is an important event in the osteoporosis calendar.

**Mark your calendars now!**

## NEW EFFE BROCHURE

The recently updated EFFE brochure is now available. Complete with photographs and additional sections such as "Who's who at EFFE", it is already a useful lobbying tool as well as a valuable source of information.

## EVENTS AGENDA

Registration is now open for the annual "Advanced training course on osteoporosis" held in Lyon from January 26th-29th 1998. The teaching faculty are recognised leaders in their fields (the majority are on the EFFE scientific advisory

For further information on all of the above, please contact the EFFE secretariat, Pavillon F, Hôpital E. Herriot, F69437 Lyon Cedex 03, France (Tel+33 472 1174 72, fax +33 472 117 494, E-mail effolyon@net.asi.fr).

## Controversies

### HORMONES – HEALTH OR HAZARD?

Hormone Replacement Therapy (HRT) is the accepted treatment of choice for the relief of menopausal symptoms including hot flushes, mood disturbances, vaginal dryness and many others. There is also strong epidemiological evidence that postmenopausal HRT reduces the risk of heart disease by up to 50%. Other benefits such as the prevention and treatment of osteoporosis, urogenital aging, and possibly dementia have increased the use of HRT throughout Europe and the US.

However, recent scientific evidence has suggested that HRT can also increase breast cancer risk. Dr Susan Love, author of "Dr. Susan Love's Hormone Book", challenges widespread estrogen replacement therapy to help menopausal women avoid osteoporosis and heart disease. "I have a problem with the idea

of taking drugs for prevention", says Love, "we're overestimating the benefits and underestimating the risk". (Available results from intensive research programmes do however contradict this argument. Editor).

The current widespread use of HRT was also questioned at the European Parliament when Ms Lesley Kenton, author of "Passage to Power", spoke about the role of 'alternative medicine'. According to Ms Kenton, "natural progesterone", rather than conventional HRT, should play a larger role in treating bone loss. She mentioned a study carried out by Dr John Lee in California on 100 post-menopausal women using natural progesterone cream 3 times a day in combination with a nutritious diet. Dr Lee recorded an average increase in bone density of 15.4% after 3 years of progesterone cream application.

However, as Dr. Lee's study was neither randomised nor controlled, the gold standard clinical

trial design for new drug approval, the results cannot be used as scientific evidence. There are still no published data that progesterone is absorbed through the skin in this form nor validated scientific research into the effect of progesterone alone on bone density or fracture risk. But these results do suggest an effect that should perhaps be scientifically assessed.

The decision whether to take HRT is an individual one. It should depend on a collaborative assessment of a woman's overall health, history of cancer, heart disease and osteoporosis. If she chooses to reject the HRT option, she and her doctor should discuss other types of appropriate medical treatment. Whatever route a woman decides to take should be combined with a healthy lifestyle by not smoking, getting regular exercise and eating a diet rich in calcium and low in fat. However, the adoption of a healthy lifestyle alone is not an alternative to appropriate drug therapy.

## Euro News

### OSTEOPOROSIS RECEIVES OFFICIAL RECOGNITION

To encourage discussion and promote debate on health concerns, the European Commission produces a Health Status report for the European Community. The latest report [COM (97) 224 final] focuses exclusively on women's health issues. Within the report osteoporosis was officially recognised as one of the chief health concerns for elderly women, an important first step to improving the current situation.

Osteoporosis is much more frequent among women, and as society ages, the incidence of osteoporosis increases. Due to the significant disease and death associated with it, osteo-

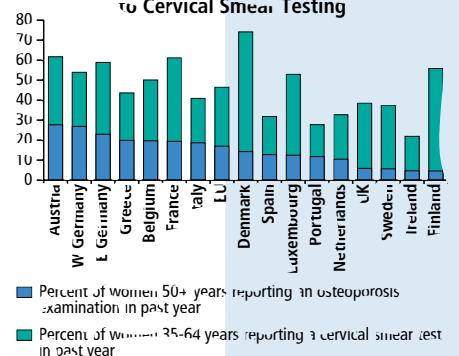
porosis is becoming a growing concern for many European Community member countries.

Although this report concluded that elderly women are prone to debilitating chronic illnesses, osteoporosis was not given the in-depth attention that cardiovascular diseases and cancer received. 1996 Eurobarometer surveys indicate that only 17% of women over the age of 50 years have had a test for osteoporosis compared to about 45% of women aged 35-64 who report having had a cervical smear.

Article 129 of the Treaty specifies that the European Community is to ensure a high level of health protection by means of health promotion and disease prevention. As osteoporosis testing plays an integral part of disease preven-

tion, osteoporosis needs to be elevated to equal status with other serious health concerns to avoid it reaching epidemic proportions.

Osteoporosis Examinations limited compared to Cervical Smear Testing



# WORLD OSTEOPOROSIS DAY 1997 WAS A GLOBAL SUCCESS

*Space dictates that we can only report on the following countries:*

## China

The calcium theme was seen in Beijing with a large seminar on the relationship of osteoporosis and calcium intake. The 500 attendees included officers from the Chinese Health Ministry, scientists, doctors, and reporters from major national news agencies and newspapers. A whole page of articles on osteoporosis was published in "China Medicine", the largest medical daily in China. Free osteoporosis examinations and consultations were organised by branches of the national society and educational programmes were shown on local TV stations.

## Hungary

An open air event in the City Garden (Varos-major) in Budapest was the highlight of a week-long osteoporosis campaign surrounding World Osteoporosis Day. The most popular event of the day was the special outdoor exercises. Conducted by physiotherapists from various institutes, these group classes were enjoyed by hundreds of participants. Attended by 1500 people, this outdoor event also included a 'doctors meet patients' programme and lectures on ageing, lifestyle, diet and emerging osteoporosis problems.

## Romania

Calcium-rich refreshments were a healthy incentive to take a "30 Minute Healthy Bone walk" in Tirgu Mures on World Osteoporosis Day. Participants were served a cup of yoghurt (sponsored by the local milk factory) with fruit and a sesame seed cake (donated by the local private bakery). The participants, who wore WOD badges on the day, were given a lecture about osteoporosis prevention by the Fundatia Rheum-Care President, Dr. Iren Nagy. She also

gave interviews in both Romanian languages on the radio and for the local newspaper. The event was a first for Romania and its success in raising awareness as well as money should inspire future events.

## Germany

A press conference at the Bavarian Ministry of Health in Munich generated 23 TV reports. Self help groups and patient interviews received a high proportion of the coverage. A Public Information Day at the Kuratorium Knochengesundheit attracted over 300 visitors of all ages, even families spanning 3 generations. Events of the day included gymnastics, bone-friendly snacks and individual advice from physicians.



*Fitness and Fun at the Kuratorium Knochengesundheit*

## Lebanon

A major osteoporosis booklet distribution took place in Lebanon in supermarkets, hospitals, drugstores and doctor's surgeries. Osteoporosis was also highlighted on billboards throughout Beirut and on television.

## Slovenia

Osteoporosis enjoyed a high profile in the media on World Osteoporosis Day. The Slovene

Bone Society had previously established a good relationship with the Bureau for Women's Affairs and together they achieved a great deal of press coverage on the day.

## UK

In London over 100 walkers, including MPs and osteoporosis sufferers, met at the Houses of Parliament to take "their bones for a walk". Cheese rolls and bottled water provided calcium rich snacks for walkers at the finishing line. The event provided the opportunity for MPs to chat informally about local facilities for osteoporosis sufferers and to learn more about what can be done to prevent the disease.

## SUPPORT FOR WORLD OSTEOPOROSIS DAY AT THE EUROPEAN UNION

EFFO's important supporter, Padraig Flynn, member of the European Commission, again lent us his support, hoping that "the 1997 World Osteoporosis Day will continue to highlight this preventable disease so that all action can be taken in the future to ensure that osteoporosis is avoided and does not become an increasing public health issue".

Another notable supporter is Euro MP Graham Watson who, after visiting the EFFO Osteoporosis stand, disseminated a press release saying "The Europe-wide initiative seeks to ensure osteoporosis is included in appropriate EU programmes ... I am keen that this new initiative should encourage women to take a preventative course of action before it is too late ... Early detection is the key to this wretched disease".

## Fundraising

### DEBUT FUNDRAISING SESSION

Sponsored by EFFO, this session at The 3rd Worldwide Conference of Osteoporosis Patient Societies was organised by Brakeley Europe, Fundraising and Management Consultants.

The search for income is an ongoing activity for many societies and maintaining the balance between a society's core activity and fundraising often means a great deal of hard work. However, spreading information about and bringing an understanding of osteoporosis and the issues that surround it are essential to attract the funding that keep societies in

business. It is a truism that people will only support you if they are convinced of the real need and urgency of the work that you are doing. As fundraising itself involves explaining the need and purpose of your society, constant attention to public relations work is essential.

Osteoporosis societies across the world inevitably differ a great deal. Some are well established and experienced at fundraising, others are small and comparatively inexperienced. The exact purpose of individual societies also varies, ranging from support for research programmes to public campaigning. There are valuable insights to be gained from experiences and approaches in different countries and societies.

The session focused on the sources and techniques of fundraising and the public relations work which supports it. It also looked at the ways in which these techniques and strategies can be adapted to different cultures, tax and legal systems.

To bring such a diverse range of interests and needs together to discuss the topic of fundraising and public relations is a bold move but it is founded on the knowledge that there is a common strand and strategies and ideas that are useful to everyone.

**Valerie Pakenham Keady**  
*Brakeley Europe, Fundraising & Management Consultants*