



BMD MEASUREMENTS FORM THE BASIS FOR THE DIAGNOSIS OF OSTEOPOROSIS AND PREDICTION OF FRACTURE RISK

Bone mineral density (BMD) is an important component of fracture risk and can be measured with precision. The most widely accepted methods for assessing bone mass are single energy (for peripheral sites) and dual energy (for axial or appendicular sites) absorptiometry. Standard skeletal radiographs are a very inaccurate method although they can detect significant bone loss.

Bone Mineral Density provides important prognostic information as the risk of fracture approximately doubles for each standard deviation decrease in bone mineral. As a diagnostic tool, BMD measurement should be used in all individuals with significant risk factors when the result will influence clinical management. BMD measurement may also be used to monitor the results of osteoporosis treatment and to aid compliance. Although information on which to base a recommendation for repeated monitoring is limited, the current consensus is that BMD might be measured at the time of the peak response after the start of treatment, and one or more years thereafter, preferably using the same instrument for the follow-up measurement.

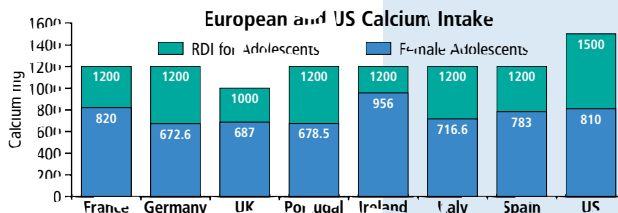
The correct application of the methodology and interpretation of assessment, described in detail in an EFO position paper "Practical Guide for the Use of Bone Mineral Measurements" (Osteoporosis Int. 1996; 6: 256-261), should improve the direction of treatments to those most in need.

Prof J A Kanis



LOW CALCIUM INTAKE SEEN IN ADOLESCENTS WORLDWIDE

Teenagers must have an adequate calcium intake during adolescence to achieve peak bone mass, but a comparison of Recommended Daily Intakes (RDIs) and national nutrient intakes reveals that teenage girls throughout Europe and the USA are not consuming enough calcium in their diet. These teenagers should be targeted as potential osteoporosis risk groups and appropriate education measures should be taken.



POSTMENOPAUSAL WOMEN NEED MORE THAN JUST CALCIUM

The US National Osteoporosis Society, National Dairy Council and American College of Sports Medicine recently commissioned a study which found that women aged 50 and over lacked critical understanding of how to maintain bone health after menopause. 87% of women interviewed believed that calcium is effective in treating postmenopausal osteoporosis. Although a diet rich in calcium and exercise is critical to bone health throughout life, when bone loss accelerates at menopause, calcium alone is insufficient. Women at risk should supplement calcium with medication to prevent excessive bone loss.



Organisation

EFFO Board of Trustees

Pierre Delmas, President, **France**; Claus Christiansen, Secretary, **Denmark**; Herbert Fleisch, Treasurer, **Switzerland**; Pierre Meunier, Past President, **France**; Peter Burckhardt, **Switzerland**; Linda Edwards, John Kanis, **UK**; Socrates Papapoulos, **Netherlands**; Leo van Wersch, **France**.

EFFO Scientific Advisory Board

Belgium: Prof. Jean-Pierre Devogelaer, Prof. Piet Geusens, Prof. Jean-Yves Reginster; **Czech Republic**: Dr. Jan Stepan; **Denmark**: Dr. Claus Christiansen; **France**: Prof. Pierre Delmas, Prof. Pierre Meunier, Dr. Marie Christine de Vernejoul; **Germany**: Dr. Dieter Felsenberg, Prof. Claus Glüer, Prof. Helmut Minne, Prof. Johann Ringe; **Hungary**: Dr. Gyula Poor; **Israel**: Dr. Uri Liberman; **Italy**: Prof. Silvano Adami, Prof. Carlo Gennari, Prof. Sergio Ortolani; **Netherlands**: Dr. Paul Lips, Dr. Socrates Papapoulos; **Poland**: Prof. Roman Lorenc; **Sweden**: Prof. Erik Allander, Dr. Olof Johnell; **Switzerland**: Prof. Jean-Philippe Bonjour, Prof. Peter Burckhardt, Prof. Herbert Fleisch, Dr. René Rizzoli; **UK**: Dr. Juliet Compston, Dr. Cyrus Cooper, Prof. John Kanis, Dr. Jonathan Reeve, Prof. Alan Silman.

EFFO National Society Board

Austria: Austrian Menopause Society, Austrian Society for Bone & Mineral Research, Selbsthilfe Gruppe Osteoporose; **Belgium**: Bédébène, Belgian Bone Club, Belgian Royal Society of Rheumatology; **Czech Republic**: Czech Society for Metabolic Skeletal Diseases; **Denmark**: Danish Bone Society, Osteoporose foreningen; **Finland**: Finnish Bone Society, Finnish Osteoporosis Society; **France**: Groupe de Recherche et d'Information sur les Ostéoporoses, Association des Femmes contre l'Ostéoporose; **Germany**: Bundesselbsthilfeverband für Osteoporose e.V., Deutsche Gesellschaft für Osteologie, German Society for Endocrinology, Kuratorium Knochengesundheit; **Greece**: Hellenic Society for the Study of Bone Metabolism; **Hungary**: Hungarian Society for Osteoporosis; **Ireland**: Irish Osteoporosis Society; **Israel**: Israel Society on Calcified Tissues Research; **Italy**: Italian Society of Mineral Metabolism, Italian Society of Rheumatology, Lega Italiana Osteoporosi, Società Italiana Osteoporosi; **Lebanon**: Lebanese Osteoporosis Prevention Society; **Lithuania**: Lithuanian Fund of Osteoporosis; **Netherlands**: Dutch Society for Calcium and Metabolism, Osteoporose Stichting, Osteoporose Vereniging; **Norway**: Norsk Osteoporoseforening; **Poland**: Multidisciplinary Osteoporotic Forum, Polish Foundation of Osteo-

porosis; **Portugal**: Associação Nacional contra a Osteoporose, Portuguese Association of Osteoporosis, Portuguese Society of Metabolic Bone Disease; **Russia**: Russian Association on Osteoporosis; **Slovak Republic**: Slovak Section Osteoporosis and Metabolic Bone Diseases; **Slovenia**: Slovene Bone Society; **Spain**: Fundación Española de Osteoporosis y Enfermedades Metabólicas, Sociedad Española de Investigación Osea y Metabolismo Mineral; **Sweden**: Riksföreningen Osteoporotiker, Swedish Osteoporosis Society; **Switzerland**: Association Suisse contre l'Ostéoporose, Donna Mobile Arbeitsgemeinschaft Osteoporose Schweiz; **UK**: Bone & Tooth Society, National Osteoporosis Society.

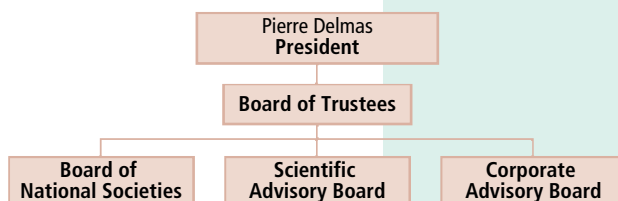
EFFO Corporate Advisory Board

Asta Medica, Boehringer Mannheim GmbH, Cassenne, Chiesi, Cilag Int., E. Tosse & Co MBH, Gentili Spa, Hoffman-La Roche Ltd., Hologic Europe, Hybritech Europe, IGEA s.r.l., Johnson & Johnson Clinical Diagnostics, Lilly Research Laboratories, Lunar, Merck KGaA, Metra Biosystems, MSD, Nestlé, Novartis, Novo-Nordisk A/S, NV Organon, Osteometer Meditech A/S, Pierre Fabre Médicaments, Proctor & Gamble Pharmaceuticals Europe, Rhone Poulenc Rorer, Rotta Research Laboratorium, Sanofi Recherches, Schering AG, Servier, Stratec, Strathmann Ag & Co., Teva Pharmaceutical Industries Ltd., Yamanouchi.

EFFO Staff

Executive Director: Mary Fraser, Switzerland; **Executive Secretary**: Véronique Forterer, France; **Assistant**: Gisèle Michon, France.

Contact details for National Societies can be obtained from EFO web-site <http://www.effo.org> or via EFO secretariat in Lyon, tel: +33 472 117 472, fax +33 472 117 494, e-mail: effolyon@net.asi.fr.



Acknowledgements

Many thanks to all those who contributed to EFO News. EFO News is supported by Osteoporosis International, the scientific journal of EFO and American NOF, published by Springer-Verlag London Ltd. (Tel +44 1 483 41 41 42, fax +44 1 483 42 12 70, E-mail chris@svl.co.uk).

Feedback & Subscription

Please contact Mary Fraser, EFO News, EFO secretariat, Pavillon F, Hôpital E.Herriot, F69437 Lyon Cedex 03, France. (Tel +33 472 11 74 72, fax +33 472 117 494, E-mail: mfraser@effo.org). EFO website <http://www.effo.org>

Letter from the Editor



Dear Readers,

As a follow up to our hip fracture article in the Spring Edition, we are leading our Summer Edition with Vertebral fractures, a common sequelae of osteoporosis and one which causes drastic impairment in quality of life.

In compiling information for EFFO News we try to include the most up-to-date information on the most relevant topics. However, to communicate this valuable information EFFO News needs to be circulated throughout the European population, to physicians, to health administrators and politicians. This requires funds so please subscribe to EFFO News today – your support is needed to continue our efforts to enlighten and inform.

EFFO is honoured to be associated with such eminent women as Queen Silvia of Sweden, Royal Patron of EFFO, Queen Sophia of Spain, Honorary President of the 4th National Osteoporosis Day, and Mary Robinson, President of Ireland and Patron of the Irish Osteoporosis Society, all of whom have shown their support for osteoporosis education activities throughout Europe. They are a valuable inspiration to all and I hope that other member countries will be able to enlist the support of their own foremost women in the future.

Yours sincerely,

Professor Helmut Minne

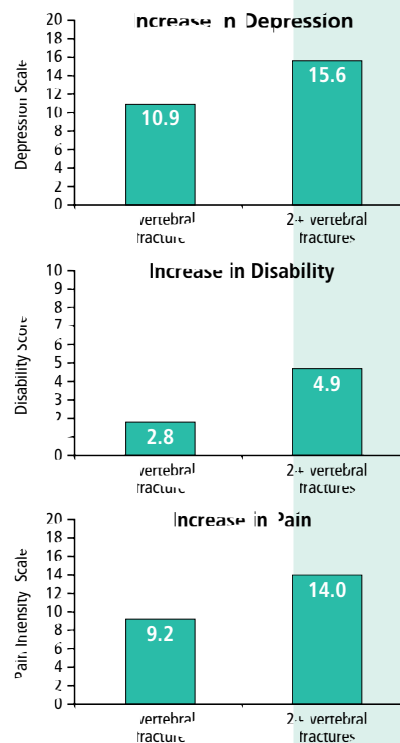
DEFORMITY & DEPRESSION: CONSEQUENCES OF VERTEBRAL FRACTURE

Severe spinal deformation, a common consequence of multiple vertebral fractures, causes chronic pain, functional limitation and subsequent depression.

Although a single vertebral fracture is unlikely to result in spinal deformation, two or more fractures may result in significant spinal deformation, pain and subsequent impairment of quality of life. Women with existing fractures, mild or severe, are at increased risk of additional fractures in the future, as shown by Huang and Ross. Therefore, treatment of patients with a history of a vertebral fracture and those with low bone mass is vital because these patients are known to have an increased fracture risk.

Functional limitation is typical of vertebral fracture and is clearly related to clinical measures of spinal deformation. Quality of life decreases as spinal deformation increases. A recently published paper by Gudrun Leidig-Bruckner linked a high deformation of body shape, as seen in patients with kyphosis, with increased dependency. Difficulties with carrying bags and bending were the most frequently reported items and these particular limitations required frequent assistance. Emotional dysfunction is a serious problem in patients with multiple vertebral fractures and is directly connected to functional disabilities. Bone-related measurements cannot assess the drastic reduction in quality of life. Besides appropriate medication, treatment should include physical therapy, pain relief

and coping strategies. However, the prevention of multiple vertebral fractures would save many patients from the pain and suffering that these fractures are known to cause.



Dramatic increase in disability, depression & pain seen in patients with vertebral fractures

THE VOICE OF THE OSTEOPOROSIS SUFFERER

The devastating impact of osteoporosis can be most evocatively described by the sufferers themselves. A recent study 'The Silent Thief. The Voice of the Osteoporosis Patient' surveyed over 1,500 patients to assess the true impact of osteoporosis on the patient.

Effect on health

• "I can't walk very far because I'm bent over. My spine is pressing against my lungs. I used to be very active and now I am no longer able to be". (UK)

Effect on lifestyle

• "No sex-life. My skeleton can't take the strain of any movement. My pelvis is totally de-calcified". (Sweden)

The physical and psychological cost

• "I'm always in pain. I feel trapped in my own body. There is very little that I can do even though I try. I hate asking people for help... I feel lost and as if I don't belong in this world anymore. I get very depressed and lonely". (Netherlands)

Further research in Quality of Life is imperative to improve the lives of osteoporosis patients throughout Europe. Listening to the osteoporosis patient further emphasises the need for prevention, prompt diagnosis and effective treatment.

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

EUROPEAN COUNTRIES JOINED TOGETHER TO TAKE ACTION

The importance of calcium was a theme seen throughout Europe on World Osteoporosis Day, June 24 1997.

The Italian public could sample high calcium cheeses and a calcium rich cookbook was launched. A dinner high in calcium and vitamin D was prepared on national Danish TV. EFFO co-ordinated the production and dissemination of a press pack comparing dietary calcium intakes throughout Europe.

Some countries took the opportunity to promote exercise; groups all over the UK took their bones for a sponsored 30 minute walk, the Danish public was encouraged to take a 30 minute walk on World Osteoporosis Day and in France a 3 generation family walk took place followed by a healthy bones quiz. World Osteoporosis Day enjoyed high expo-

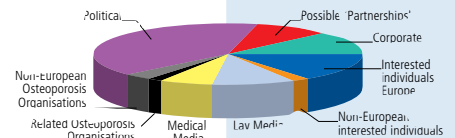
sure in Italy with the franking of letters sent from Milan & Rome with a World Osteoporosis Day emblem for 10 days around 24 June. A scientific osteoporosis meeting also took place the preceding weekend.

At the EU, EFFO organised an informative exhibition at the European Parliament focusing on services offered by national societies throughout Europe. Pictures of activities of the national societies and a variety of bone scanning equipment were on display. Visitors were invited to arrange a bone scan in their home country and could pick up their national society booklet to read about osteoporosis in their mother tongue.

EFFO DATABASE NEWS

In the past year EFFO has made over 1,500 contacts to add to its own database, resulting in a truly diverse and unique database that not only spans Europe but also includes some VIPs: Nana Mouskouri, MEP for Hellas; Padraig Flynn, European Commissioner for Employment and Social Affairs; Mary Robinson, President of Ireland; Gro Harlem Brundtland, ex-Prime Minister of Norway; Juliette Gréco, famous French singer. Please let us know of additional contacts who should be included in this developing network.

EFFO's diversified worldwide contact database



Controversies

Although hormone replacement therapy (HRT) is widely acknowledged as improving quality of life for menopausal women in the short term and reducing the risk of heart disease and osteoporosis in the long term, prolonged use has recently been associated with a small but significant increase in breast cancer risk.

The connection between breast cancer risk and hormonal therapy is not clear or confirmed. Several studies have concluded that less than 5 years of oestrogen therapy has no impact on breast cancer risk but some other studies, particularly the large US Nurses' Health Study, suggest that long-term HRT of ten years or more can increase the risk of breast cancer.

Oestrogen naturally occurs in the body during premenopausal years or while taking oral contraceptives or HRT. A US study recently suggested a link between high bone density due to high oestrogen levels with an elevated risk of breast cancer. However, Dr Kiel, a co-author of the study, said that the findings offer no evidence for or against giving oestrogen supplements after menopause because the bone density in his study largely resulted from the women's oestrogen levels during their reproductive years. Dr Jonathan Reeve from the Cambridge Institute of Public Health in the UK, points out that "there are plenty of other potential explanations, such as might be found in our genes, our environment or our diet".

The fear of breast cancer is a major and emotional issue which limits the current use of HRT, despite the potential benefits of hormone therapy on heart, bone, colon and quality of life. According to Dr Reeve, as all previous studies have been unrandomised, which can introduce bias, the definitive answer can only be found in the results of future randomised trials, notably the Women's Health Initiative in the USA and the Wisdom study in Europe which are combining forces to measure the true risk of breast cancer in women randomised to either take or not take HRT for more than 5 years. The first results on breast cancer of these studies are expected in 10-15 years.

The largest ever study into the effects of hormonal therapy, the 'Million Women Study' was launched in May 1997 in the UK. It aims to discover whether HRT affects the risk of breast cancer and heart disease, and to compare different types of HRT. Although the study is not randomised, the large size of the cohort should provide high statistical power and results are expected in five years. Meanwhile, the increase in risk of breast cancer with long-term use of HRT is outweighed in most women needing therapy by the significant benefits of treatment. Although there is no firm evidence, some clinicians believe that the increase in risk really only applies to patients with a history of cancer and when HRT is taken for over 10 years.

Lobbying

CONGRATULATIONS TO SUPPORTIVE GERMAN HEALTH INSURERS

Despite cost containment and political pressure to withdraw aid for fitness, German Health Insurers have continued to contribute to "Osteoporose-Gymnastik" classes throughout Germany over the past 10 years. By refusing to withdraw such contributions, these health insurance companies have consistently shown support for osteoporosis patient societies and their role in promoting the importance of fitness and exercise in the prevention and treatment of osteoporosis.

PATIENT SOCIETY VIDEO EFFECTIVE LOBBYING TOOL

Politicians and healthcare officials from all over Sweden gathered for a major osteoporosis hearing in May 1997. Four of the foremost scientists and doctors from the osteoporosis arena spoke and Sonja Rembo, Chairman of the Swedish Patient Osteoporosis Society and a member of parliament, represented osteoporosis patients by showing their new video of patient interviews. This video is frequently used at conferences and has proved to be a useful lobbying tool.

New Services



Carton creations in Portugal

PORTUGUESE PUBLIC AWARENESS ACTIVITIES FOCUS ON PREVENTION

Two Portuguese osteoporosis societies, APOROS and SPODOM, held an exhibition in March 1997 which included a display of collages and sculptures constructed from milk and yoghurt cartons. By holding a competition to make use of these cartons, the societies hoped that schoolchildren would be encouraged to drink more milk and eat more yoghurt, two ways of helping to prevent osteoporosis. The importance of prevention in the management of osteoporosis is also emphasised by the title cover of the new APOROS and SPODOM booklet which is distributed through pharmacies, "OSTEOPOROSE prevenir para não remediar" - prevention is the best remedy.

DEBUT INTERNATIONAL OSTEOPOROSIS CONGRESS IN LEBANON

In collaboration with WHO and the Ministry of Health, The Lebanese Osteoporosis Prevention Society (LOPS) held its first International Meeting on Osteoporosis in April 1997. Great progress in the effort against osteoporosis has been made by LOPS in the past two years, it produced its first Patient Booklet and a new quarterly newsletter in 1996. National Societies form the backbone of EFO and it welcomes representatives from the middle eastern region, LOPS and the Israel Society on Calcified Tissues Research, as osteoporosis knows no boundaries.

First Irish Osteoporosis Society booklet ▶

Euro News

One of the roles of EFO is to increase the awareness and understanding of osteoporosis at a political level. As a figurehead, EFO represents all the national societies at the European Union (EU) and is actively campaigning to positively influence public policy and research priorities. Great progress has been made with the acceptance of the European Commission project "European Recommendations for Osteoporosis", and EFO hopes to keep osteoporosis in the EU spotlight.

With this in mind, I recently gave a presentation at the Health Forum Intergroup in the EU. Intergroups, informal inter-party discussion forums, foster in-depth debate on particular issues and this meeting focused on women's health. Besides EFO, EuroLink Age, European Institute for Women's Health and the Public Health Commission of the EU were represented.

After defining osteoporosis and EFO's aims, I pointed out the current omission of osteoporosis from the EU Health Monitoring Programme list of indicators. Given the evidence that lifestyle and environmental changes could reduce the incidence of osteoporotic fractures, we believe that osteoporotic fracture should be included in the final version.

I also called attention to the fact that the Fifth Framework Research Programme has not singled out osteoporosis as a priority. This research programme is currently accepting proposals and we are promoting the formation of a task force on healthy ageing to ensure that all common age-related diseases are taken into consideration.

The ongoing dialogue between the EU and EFO has been productive so far and I hope that together we can create a united front against osteoporosis throughout Europe.

Mary Fraser, Executive Director, EFO

NORWEGIAN OSTEOPOROSIS INFORMATION CENTRE OPENS DOORS

September 1996 saw the inauguration of Norway's first information centre, thanks to the efforts of Norsk Osteoporose Forening and the welcome funding by Norske Kvinners Sanitetsforening (Norwegian Women's Public Health Association). Open daily from 9-11am, the centre is manned by a physiotherapist and a nurse, who offer advice to visitors in person or via their busy osteoporosis help-line.

PATIENT SOCIETY FOR SWITZERLAND

The first patient society, Donna Mobile, has just been established in Sissach, North West Switzerland. Currently staffed by a dedicated team of four, Donna Mobile will be a valuable source of information and advice. They have already produced a leaflet and are currently collaborating with other relevant organisations in Switzerland to optimise help and advice for osteoporosis sufferers.

TIMELY LAUNCH OF NEW BOOKLET IN IRELAND

The Irish Osteoporosis Society is launching its first booklet "The Key to Healthy Bones" to coincide with World Osteoporosis Day 1997.

