

BONE AND JOINT DECADE CANADA

OSTEOPOROSIS ISSUE



It's Your "Move"...

It's Your "Choice"



High Fracture Risk in Canadian First Nations

2005 WORLD NETWORK CONFERENCE,
OTTAWA, CANADA

Cochrane Musculoskeletal
Group:

Help to advance research in
osteoporosis and arthritis

LET THE SUN SHINE IN

Vitamin D vital to bone health

The Osteoporosis Care Gap in Canada

Osteoporosis affects at least one in
eight Canadian men over 50



*Healthy Bones and
Healthy
Joints...Keep Canada Moving*



It's Your "Move"...

It's Your "Choice"

Healthy Bones and Healthy Joints...Keep Canada Moving

"OSTEOPOROSIS - We All Have A Part to Play

Volume 2 Issue 2
Winter 2004

by Hazel Wood, Eastern Canada BJD Coordinator and
Dot Brown, Western Canada BJD Coordinator

Researchers are documenting a growing phenomenon on the prevention and treatment of osteoporosis, and governments are taking notice (see the report on Bone Health by the Surgeon General). For some time, we have known that women were at risk of developing osteoporosis, particularly after the age of 50, however, we are finding that men and aboriginal people are at significant risk of this disease as well. In this issue, we received two significant articles that impact both types of people. This newsletter also features articles on the novel ways of identifying people at risk of developing osteoporosis, information about how to prevent and treat osteoporosis, and, of course, the picture would not be complete



unless we could share those strategies of knowledge across society. The Cochrane Collaboration invites consumers, researchers, clinicians and others to get involved in helping them to spread the knowledge around.

We have included photographs that put a face to the names of our Canadian leaders in research. It is our hope that you will recognize those people who are working to stamp out osteoporosis and reduce the burden for those with this debilitating disease.

In this issue, you will also find information on the Canadian Orthopaedic Foundation's new improved website, www.canorth.org. This site is exciting and interactive, sharing a wealth of information about surgery, the various bone and joint conditions as well as patient advocacy.

The Bone and Joint Decade's 2005 World Network Conference is set to meet in Ottawa,

October 26 – 28, 2005. By working in tandem with our arthritis partners, three consecutive conferences will be delivered, building on the themes of setting standards for musculoskeletal care. The conferences will feature participants from many of the countries that support the Bone and Joint Decade, the World Health Organization and the World Bank. With this kind of turnout, we expect that we will be able to get the ear of our governments and policy makers. Using research as our foundation, we are expecting to see a great move forward in setting standards for arthritis, hip fractures, and pain management. We will also be addressing such important issues as reducing road traffic accidents and ensuring adequate education for health professionals caring for people with musculoskeletal conditions.

Finally, BJD Canada would like to acknowledge the support that we receive from our many partners. In particular, we would like to acknowledge the Institute of Musculoskeletal Health and Arthritis (IMHA), of the Canadian Institutes of Health Research. IMHA has contributed resources to help publish this newsletter, develop and upkeep our website www.bjdcanda.org, and plan the upcoming international conference.

IN THIS OSTEOPOROSIS ISSUE:

OSTEOPOROSIS - We All Have a Part to Play	2
Cochrane Musculoskeletal Group: Help to advance research in osteoporosis and arthritis	3
Integrated Post-Fracture Care for Osteoporosis in Ontario: Demonstration Project	4
Let the Sun Shine In: Vitamin D vital to bone health	5
Osteoporosis affects at least one in eight Canadian men over 50+	6
Osteoporosis Strategies could cut fractures in Half	7
2005 World Network Conference, Ottawa, Canada	7
Canadian Orthopaedic Foundation: Celebrates 40 years.	8
High Fracture Risks in Canadian First Nations	9
A Lucky Break	10
Significant Bone Loss Associated with Depo-Provera Use is Sadly No Surprise; We Call For Action To Make Sure This Doesn't Happen Again.	11
The Osteoporosis Gap in Canada	12
Surgeon General Issues First-Ever Report on Nations Bone Health	13
BEST FACE FORWARD website brings new resources to patients and professionals	15
Activities and Events	16

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Cochrane Musculoskeletal Group: Help to advance research in osteoporosis and arthritis

by Dr. Peter Tugwell, Co-ordinating Editor of the Cochrane Musculoskeletal Group

It was estimated that in 1990 almost 2 million people across the world fractured their hip due to osteoporosis. In the fight against osteoporosis, ways to treat and prevent osteoporosis have been developed - but what really works? One of the best ways to answer this question is to look at the research. Unfortunately for most people, finding the best studies and then pulling the research together to figure out what the bottom line is about a treatment can be tedious and confusing.

To make it easier to determine whether a treatment will work or not, the CMSG is pulling together the information about osteoporosis and arthritis treatments in systematic reviews. Members of the CMSG comb through the research, analyse the results of many studies and then synthesise the research into a systematic review. The systematic review then presents the overall conclusions about the effectiveness of treatments.

But who is actually helping to pull the information together? What roles do they play? And can you help?

Members of the CMSG include a wide variety of people from many backgrounds who use their expertise in many ways to help produce systematic reviews. Many are committed to writing systematic reviews, but those not interested in writing or with less time can still help. They can provide valuable feedback about topics that should be reviewed as a priority. They can peer review or comment on proposals to do reviews and on draft copies of reviews once completed. This ensures that the review asks questions that are relevant, looks at the right benefits and harms of a treatment, is written clearly and makes conclusions that are based on the research found. Members can also help disseminate the reviews and promote their use. Finally, members can generally advocate for the work of the CMSG and assist with seeking funding for CMSG activities.

Who can help? Researchers, clinicians, people with osteoporosis and arthritis, and other decision makers.

Researchers who have experience conducting studies that test drugs and treatments for osteoporosis and other arthritis diseases can help. Whether writing, peer reviewing or helping to set priorities, researchers provide experience and expertise in the designs of research studies, in the area of musculoskeletal diseases



Dr. Peter Tugwell

and treatments, and in statistics.

Physicians, surgeons and other clinicians, such as physiotherapists and occupational therapists, also write and help to write CMSG systematic reviews. Clinicians offer the unique perspective of what and how treatments work in 'real life'. Because they are working directly in the field with other clinicians and patients, they offer valuable insight into the

priority topics that should be reviewed, what and how it should be covered, and how to ensure the message reaches other clinicians.

The CMSG also relies on the input of people with musculoskeletal diseases, such as osteoporosis. Facilitating the participation of people directly affected by osteoporosis and arthritis in the work of the CMSG is important. People with musculoskeletal diseases act in all roles of the CMSG – setting priority topics, peer reviewing, disseminating and advocating. In fact, they have been key in the production and dissemination of easy to read summaries to the public available at the Arthritis Society web site http://www.arthritis.ca/look_at_research/cochrane_reviews/

Participation in the CMSG has been successful because all perspectives are valued and members do not do it alone. Members are supported by the editorial group of the CMSG. The editorial team includes experts in the area of musculoskeletal diseases and methods of producing systematic reviews. Throughout the process the group provides guidance to search the literature for studies, statistically analyse the results, write, work through the technical issues and translate the results into a format that is usable. With the support of the editorial team, members are able to really contribute to the advancing research in the area of osteoporosis and arthritis.

If you are a person with osteoporosis or a musculoskeletal disease, a researcher, a clinician or other decision maker interested in this area and would like to contribute to the production and dissemination of relevant and high quality systematic reviews, contact the CMSG at cmsg@uottawa.ca. We would love to have you on our team!

Researchers who have experience conducting studies that test drugs and treatments for osteoporosis and other arthritis diseases can help.

Integrated Post-Fracture Care for Osteoporosis in Ontario: Demonstration Project

Co-investigators: Earl Bogoch MD, MSc, FRCSC; Dina Brooks BSc (PT), MSc, PhD; June Carroll MD, CCFP; Gillian Hawker MD, MSc, FRCPC; Liisa Jaakkimainen MD, MSc, CCFP; Hans Kreder MD, MPH, FRCSC; Merrick Zwarenstein MB, BCh, MSc

Low trauma fractures are one of the single most important predictors of future fracture and should be used to identify people to be investigated for osteoporosis. A minimal trauma fracture is defined as a fracture caused by an injury that would be insufficient to fracture a normal bone, such as a fall from a standing height or less. The majority of patients who present with minimal trauma fractures at Ontario emergency departments, fracture clinics, and family physician offices are under-investigated and under-treated for osteoporosis. Thus an important opportunity for intervention is missed in these high-risk individuals since effective therapies exist to decrease risk of repeat fractures.

In 2003, we developed an integrated post-fracture care model which outlines minimum standards of care in the hospital setting where the fracture is first treated and in the primary care setting. Our research team received funding in April, 2004 from the Primary Health Care Transition Fund through the Ontario Ministry of Health and Long-Term Care to conduct a 2-year demonstration project to improve access to multidisciplinary post-fracture care services for osteoporosis investigation and management in underserved areas in Ontario. We have partnered with four Ontario hospitals (Cornwall Community Hospital, Orillia Soldiers' Memorial Hospital, Timmins and District Hospital; and, Woodstock General Hospital) to implement this project within their communities.

The objectives of this demonstration project include evaluating the effectiveness of our integrated post-fracture care model to improve access, quality and continuity of care), to assess the generalizability of the model for use in other parts of Ontario and to assess the processes involved in providing integrated post-fracture care. Outcome measures will include satisfaction with care, follow-up with family physicians, information provided, knowledge of osteoporosis, fall prevention awareness, utilization of bone-sparing medications, adequate calcium and vitamin D intake and participation in weight-bearing activity. This is a non-equivalent pre-test post-test design.

One aspect of the pilot project is the development of a telehealth program in partnership with the Multidisciplinary Osteoporosis Program at Sunnybrook and Women's College Health Sciences Centre, Women's College campus and the NORTH Network. The telehealth program will provide continuity of care for fracture patients in underserved areas and those without access to a family physician. The telehealth program will link these patients to this multidisciplinary team which includes an occupational therapist, physical therapist, dietician, rheumatologists, endocrinologists, pharmacist and clinical nurse specialist. Patients who are referred to the program will receive an individualized treatment plan based on consultation with members of the team. The telehealth program will be implemented in February, 2005 for a one-year pilot with two of the demonstration communities (Orillia and Timmins).

We have completed the pre-test data collection. In the coming months we will continue to work closely with the four demonstration sites to implement the model by developing health care professional and patient toolkits and undertaking continuing professional development. In addition, we will work on developing communication strategies to raise patient awareness regarding the need to follow-up and investigate for the possibility of osteoporosis following a low trauma fracture. Post-intervention data collection will be completed by April 2006.

References:

Jaglal SB, Bogoch ER, Cadarette SM, et al. (2003). Development of a Model for Integrated Post-Fracture Care: A Report to the Ontario Women's Health Council. <http://www.womenshealthcouncil.com>

Low trauma fractures are one of the single most important predictors of future fracture and should be used to identify people to be investigated for osteoporosis.

By Susan Jaglal, PhD, Associate Professor, Department of Physical Therapy, Toronto Rehabilitation Institute/University of Toronto Research Chair and Research Scientist, Osteoporosis Research Program, Sunnybrook and Women's College Health Sciences Centre

Let the sun shine in Vitamin D vital to bone health

by John Aylen Freelance Writer.

The overarching mission of the Cochrane Canadian family physicians needs to ensure that their patients of all ages are receiving enough vitamin D, says Dr. Alexandra Papaioannou, Associate Professor of Medicine at McMaster University and a geriatrician at Hamilton Health Sciences.

“Many seniors who are housebound or in nursing homes have limited exposure to sunshine and are at increased risk of vitamin D inadequacy,” Dr. Papaioannou said. “However, we are also discovering that there is an increase in vitamin D inadequacy among young children. Children are at greater risk of developing rickets, a disease that most Canadian physicians haven’t faced for a generation.”

Vitamin D is doubly important because it also increases calcium absorption by as much as 30 to 80 percent. Furthermore, proper levels of vitamin D and calcium improve the beneficial effects of bisphosphonates, a class of drugs used to treat osteoporosis.

Sunlight and vitamin D

Approximately 10 to 15 minutes of exposure of hands, arms and face two to three times a week provides the body with enough vitamin D. But concerns about skin cancer have caused many people to avoid the sun or wear sunscreen. And in regions above the 40° latitude line, such as Canada, UVB rays from the sun will not reach the skin from October to March or April.

A 2002 study by the Canadian Medical Association found that 34 percent of people in Calgary ages 27 to 89 are vitamin D inadequate (Rucker et al). A meta-analysis study published in the April 2004 issue of the Journal of the American Medical Association found that vitamin D may also decrease falls by 20 percent (Bischoff-Ferrari et al) in older patients.

Skin colour is another factor that affects vitamin D concentration. Individuals with darker skin require more sun exposure to produce the same amount of vitamin D as in those with lighter skin.

“Physicians need to encourage their patients to eat and drink vitamin D rich foods or take supplements,” Dr. Papaioannou said. “It’s a good idea to write it down on your prescription pad to ensure the individual is receiving the correct amount.”

Vitamin D in your foods

The Osteoporosis Society of Canada recommends that Canadians aged 19 to 50, including pregnant or lactating women, receive 400 international units (IUs) of vitamin D per day. Adults age 50 and older should receive 800 IUs from all sources.

Achieving these levels can be difficult because relatively few foods are fortified with vitamin D. Cow’s milk, soy milk and orange juice contain 90–100 IUs per 250 ml glass. Fatty fish such as salmon contains 360 IU per 100 g. Other foods with small amounts of vitamin D include margarine, some brands of yogurt, eggs, chicken livers, herring, mackerel, swordfish and fish oils (halibut and cod liver oils).

Since it may be difficult to get enough vitamin D from food alone, a supplement is recommended for most people. Most multi-vitamins provide 400 IUs of vitamin D. Some calcium supplements also contain 100–200 IUs of vitamin D. Dr. Papaioannou suggests patients consult with their physician or pharmacist to decide which supplement is right for them.

Some foods and drugs can inhibit the absorption of vitamin D in the body including mineral oil, antacids, cortisone, liver and gall bladder disorders and some cholesterol lowering drugs.

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Besides rickets, other conditions that have been linked to vitamin D inadequacy include myalgias or difficulty with muscle ache, osteopenia, osteoporosis, muscular weakness, joint pain and muscle twitching.



Dr. Alexandra Papaioannou

Osteoporosis affects at least one in eight Canadian men over 50

Men and osteoporosis the focus of the Osteoporosis Society of Canada's Osteoporosis Month awareness in November 2004

Toronto, Canada,
October 29, 2004

Osteoporosis affects men too! This November the Osteoporosis Society of Canada is urging men over 50 to discuss their risk factors for osteoporosis during their next physical examination.

"Most men over 50 and their physicians routinely monitor blood pressure, cholesterol levels, PSA levels (for prostate cancer) and discuss lifestyle behaviours such as drinking, smoking and exercise during their annual physical," says Dr. Anthony Hodzman, Chair of the Society's Scientific Advisory Council. "What we'd like them to do is add a discussion about their risk factors for osteoporosis."

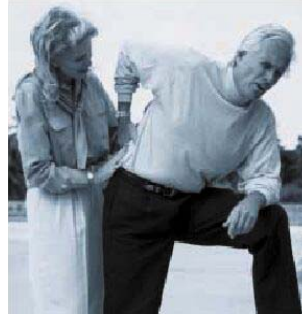
According to the Osteoporosis Society, at least one in eight Canadian men over 50 has osteoporosis, compared to one in four women over 50. And as men live longer and the population ages, this figure will only increase. Recently, the Canadian Multicentre Osteoporosis Study (CaMos) found that men over 50 had a similar rate of spinal deformity (a possible indicator of osteoporosis and its resulting spinal fractures) as women in the same age group.

Worldwide, one in five men over 50 will have an osteoporosis fracture, according to *Osteoporosis in Men*, a report written by Professor Ego Seeman and released last month by the International Osteoporosis Foundation.

In his foreword Professor Seeman notes that "osteoporosis does not just occur in women...and men who sustain fractures may suffer more severely in terms of the quality and quantity of their lives than when fractures occur in women." A major problem, he points out, is that "most men, most doctors and most governments are not aware of the problem of osteoporosis in men. But osteoporosis does not show any sex discrimination. It is an equal opportunity disease."

While the significance of osteoporosis as a women's health issue is well recognized in Canada, the same condition in men

has, until recently, been largely a neglected problem. Although osteoporosis is less common in men, the consequences associated with the disease are higher in men than in women.



Almost one third of all hip fractures occur in men and men have about double the death rate of women following a hip fracture: 34 per cent of men will die from complications within one year of a hip fracture.

Contributing factors to men's fractures include a low bone mineral density and/or excessive bone loss (determined by a bone mineral density or BMD test). Other risk factors for osteoporosis include tobacco use, excessive alcohol intake, inactivity, leanness, low calcium intake, low levels of male hormones or long-term treatment with glucocorticoids, such as prednisone.

The Osteoporosis Society of Canada urges all men over 50 to discuss their risk factors for osteoporosis with their physicians. A handy 60-second risk quiz is posted on the home page of the Society's Web site at www.osteoporosis.ca. If you are over 50 and have at least one major or two minor risk factors, the Society recommends you have a BMD test to determine if you have osteoporosis. Your physician can provide you with a referral for this test. The Society also operates an information line at 1-800-463-6942, which you can call to discuss your risk factors or order free printed information.

The good news is that there are treatments for both men and women with osteoporosis and new

research is continuing to improve the quality of life for patients. Early detection can help prevent the often devastating

effects of this disease. Don't forget your bone health during your next physical.

Annual 50+ Guy Check-up

Drinking, smoking and exercise	/
Blood pressure	/
Cholesterol	/
Prostate	/
Osteoporosis risk assessment	/

OSTEOPOROSIS STRATEGIES COULD CUT FRACTURES BY HALF

TORONTO –

The Osteoporosis Society of Canada says there is cause for optimism this year as we move into November, National Osteoporosis Month, as significant progress is being made toward an osteoporosis strategy which could help make great strides in the fight against the disease.

“A coordinated and targeted strategy has the potential to reduce fractures related to osteoporosis by 50 to 60 per cent,” said Dr. Earl Bogoch, Medical Director, Mobility Program, St. Michael’s Hospital.

“Reducing fractures not only lessens the suffering of osteoporosis patients, it also frees up valuable health care resources in hospitals, emergency rooms and long-term care facilities which can then be utilized to treat other ailments. The progress we’re making is truly a win-win in terms of the benefits that it can yield.”

Members of the Osteoporosis Society of Canada and other experts and partners from across Ontario have held a series of meetings and working sessions with the Ministry of Health to develop an Ontario osteoporosis strategy.

“We now have an effective, portable framework that can be adapted and implemented across the country, and we applaud the efforts of all of our partners for their important and valuable work,” said Karen

Ormerod, President & CEO of the Osteoporosis Society of Canada.

“Ontario is now poised to become a world leader in addressing this critical health issue – and this is especially important, with 8,000 international osteoporosis experts gathering in Toronto in 2006 for the World Congress on Osteoporosis organized by the International Osteoporosis Foundation,” Ormerod said. “We look forward to the Ontario government adopting our recommendations and creating a new Ontario Osteoporosis Strategy.”

Established in 1982, the Osteoporosis Society of Canada was the first national organization for osteoporosis in the world, and is the only national charitable organization serving Canadians who have, or are at risk of, osteoporosis. The Society works in partnership with volunteers, the medical community, other health care organizations and all levels of government to ensure there is the highest quality of services, research and education to help Canadians take care of their bones.

For further information, contact:

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2005 WORLD NETWORK CONFERENCE, OTTAWA, CANADA

BONE AND JOINT DECADE’S GOAL

The goal of the Bone and Joint Decade Canada is to promote the preservation of bone and joint health across the lifespan and to improve the health-related quality of life for people with musculoskeletal disorders.

OBJECTIVES OF BONE AND JOINT DECADE

- To reduce the social and financial cost of musculoskeletal disorders to society
- To improve prevention, diagnosis and treatment for patients
- To advance research on prevention and treatment



- To empower patients to make decisions on their care.

OUTCOME EXPECTED FROM BJD 2005 CONFERENCE

The conference will focus on identifying risk factors and strategy prevention for hip fractures, MSK related chronic pain and injury prevention. The requirements for standardizing of MSK education of health professionals around the world will also be developed. The output of the conference will be action plans for each topic area with clear deliverables. Progress on these will be presented at the 2006 BJD conference.

TOPICS TO BE DISCUSSED

1. Risk Factors and Strategies for Prevention of Hip Fractures
2. MSK education of health professionals: International needs and action plan
3. Risk Factors and Strategies for Prevention of Chronic Pain
4. Road traffic accidents and injury prevention

Visit our website at <http://www.bjdcanda.org/bfdconf2005.htm>

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Canadian Orthopaedic Foundation
Fondation Canadienne d'Orthopédie
Celebrating 40 Years 1965-2005 Célébrons 40 Ans

Founded in 1965, the Canadian Orthopaedic Foundation is a mid-sized registered Canadian charity powered by a professional staff and network of over 300 volunteers. The Foundation is Canada's only health charity dedicated solely to helping people maintain and restore their bone and joint or orthopaedic health.

Orthopaedic medicine treats a variety of injuries and disorders in people of all ages including:

- joint destruction caused by arthritis
- fractures resulting from osteoporosis
- trauma resulting from accidents and sports injuries
- spinal deformities (e.g. scoliosis of the spine)
- inherited skeletal deformities (e.g. club feet)
- neuromuscular conditions (e.g. cerebral palsy, muscular dystrophy, para- and quadraplegia)
- bone disorders (e.g. avascular necrosis)

The Canadian Orthopaedic Foundation's mission is to achieve excellence in bone and joint health, mobility and function for all Canadians through the advancement of research, education, and care. The Foundation is dedicated to raising funds through public donations and allocating those funds to initiatives that will contribute to achieving its mission.

TAKE A LOOK AT <http://www.canorth.org> The Canadian Orthopaedic Foundation's new website is up and running..

High Fracture Risk in Canadian First Nations

by Bill Leslie, Professor of Medicine and Radiology, University of Manitoba. Director, Manitoba Bone Density Program.

Ethnicity is one of the many factors that can affect bone density, fracture risk and the chance of developing osteoporosis. Most of what is known about osteoporosis comes from studies in White women, but there are reasons to suspect that the risk may not be the same for other ethnic groups. Aboriginal people are often overlooked when it comes to looking at health issues, and therefore researchers at the University of Manitoba have been working with the Assembly of Manitoba Chiefs since 1998 to learn more about bone health in First Nations men and women.



a fracture, especially those of the hip or spine. Surprisingly, skull/facial fractures were slightly less common in diabetics.

Why do Manitoba First Nations have such high fracture rates?

The answer to this question is unclear.

In a study that was recently published in The Canadian Medical Association Journal, we compared fracture rates over 13 years (from 1987 to 1999) in Manitoba First Nations adults with non-First Nations people of the same age and sex. We found the First Nations men and women were much more likely to have a fracture than their non-First Nations counterparts. First Nations men and women were at similarly increased risk. There was approximately a doubling in the risk for hip fractures, spine fractures and most other fractures. The risk for wrist and skull and face fractures was even greater. Older age was strongly associated with hip fractures in both men and women, whereas skull and face fractures were most commonly seen in younger men. Wrist and spine fractures increased with age in women, but this effect was less obvious in men.

The First Nations Bone Health Study, a research partnership between University of Manitoba researchers and the Assembly of Manitoba Chiefs, was initiated in 2001 to provide data on bone health in First Nations women. A First Nations research nurse was hired as the project coordinator and First Nations community workers were hired to screen potential respondents and act as trained interviewers.

Between June 2002 and April 2004 over 430 full assessments were completed. Some of the preliminary findings that were recently shared at the American Society for Bone Mineral Research in Seattle are:

- Average bone density was lower in First Nations women for the heel, forearm and total body.
- First Nations women also had lower vitamin D levels (needed to absorb calcium) than the White women. This produced a greater reaction in the PTH hormone (required to keep blood calcium levels normal). Higher PTH is one of the factors thought to weaken bone.

Which First Nations people are at highest fracture risk?

Certain factors stand out as signs of even higher fracture risk:

- Age and sex: These are very important factors in determining fracture risk. Skull and face fractures are usually associated with violence and predominated among younger men. Most other fractures were more common in older women, the pattern seen with osteoporosis. Hip fractures were rare before age 60 but increased dramatically in later life.
- Geographic area: Fracture rates were greatest in the northern region for most kinds of fracture. Hip fractures were an exception, and were more common in Winnipeg.
- Income: Individuals in lower income groups (family income in the lowest two-fifths of the province) had significantly higher risk for most kinds of fracture.
- Diabetes: Diabetics were more likely to have

The second phase of the study will be initiated in 2005. This will focus on bone health in northern and rural areas, and will also assess fracture outcomes.

What are the implications for First Nations?

Until now osteoporosis has not been seen as a health concern for Canadian First Nations. That may change as a result of these studies. Osteoporosis is potentially preventable and treatable with simple interventions such as adequate exercise, a good diet and a healthy lifestyle. Awareness of the problem is the first step towards developing a strategy to combat osteoporosis.

Aboriginal people are often overlooked when it comes to looking at health issues, and therefore researchers at the University of Manitoba have been working with the Assembly of Manitoba Chiefs since 1998 to learn more about bone health in First Nations men and women.

A LUCKY BREAK

by Connie Bryson

The chances of anyone referring to a broken wrist as a “lucky break” are slim. Yet for many people, a fractured wrist can be a fortunate event. That’s because a wrist fracture is often an early warning sign of osteoporosis. This type of fracture forecasts an increased risk of hip and spine fractures over the next 10 to 20 years. Appropriate treatment could halve the risk of a future fracture, improving quality of life for these people while saving healthcare dollars.

“A wrist fracture is a sentinel event in the natural history of osteoporosis,” explains Heritage Population Health Investigator Dr. Sumit Majumdar from the University of Alberta. “It is the most common symptomatic fracture related to osteoporosis. The question is: What are we doing about it?”

Not a whole lot, up until now. While guidelines suggest a preventive policy of identifying people with typical osteoporosis-related fractures and targeting them for treatment, this simply isn’t done. Dr. Majumdar, a specialist in internal medicine as well as a researcher, reviewed the literature and found that rates of testing for and treating osteoporosis a year after a wrist fracture are less than 20%.

“We call this a ‘care gap,’” he explains. “It is the gap between what we know we should do and what we are actually doing in the community. It takes anywhere from 5 to 20 years for published evidence to get into the regular practice of medicine. There’s a real need to accelerate the adoption of good evidence.”

With colleagues from Capital Health, the University of Alberta, and the University of Calgary, Dr. Majumdar designed a strategy to increase the detection and treatment of osteoporosis. Participants in the study (102 in total, including 47 control subjects) were recruited from among wrist-fracture patients 50 years of age or older who were treated at the emergency departments of the Royal Alexandra and University of Alberta hospitals in Edmonton. The intervention was information-based, meant to ensure that patient and physician would be discussing the same reliable and up-to-date information about osteoporosis and the same agenda for prevention.

All patients received appropriate and usual care in the emergency ward, except where take-home information was concerned: control subjects were given information about falls and home safety, whereas those in the intervention group were given a one-page summary of osteoporosis information. Furthermore, when the family physicians of this latter group

were sent faxed notification that their patients had been seen in the hospital for a wrist fracture, the doctors were reminded that these people were now considered at increased risk for osteoporosis and should have bone density tests. Brief treatment recommendations were also included. The osteoporosis information given patients and doctors was the same, specially developed and endorsed by five local experts in the field.

Within one week of the fracture, study personnel called all the patients, to briefly review the information in their respective handouts and encourage them to see their family physician.

The study found that the intervention strategy tripled the rate of testing and treatment for osteoporosis within six months of a wrist fracture. The finding was so significant that the study was cut short so that all patients could receive the benefit of the intervention. This was the first controlled study to address this clinical problem, and it was published in the high-profile journal *Annals of Internal Medicine*.

“I wasn’t surprised that the intervention made a difference; however, I was surprised by the magnitude of the effect,” says Dr. Majumdar. “We used rigorous science to show how this sort of knowledge-translation intervention can work. I hope this study will be a paradigm for bridging the care gap in other conditions, such as diabetes and cardiovascular disease, that often present at the interface of acute care and primary care.”

Heritage Population Health Investigator Dr. Sumit Majumdar is an assistant professor in the Division of General Internal Medicine at the

University of Alberta. He is also a CIHR New Investigator. The osteoporosis study was funded by the Medical Services Budget Innovation Fund (Alberta Medical Association and Alberta Health and Wellness) and AHFMR.

Selected publication:

Majumdar SR, Rowe BH, Folk D, Johnson JA, Holroyd BH, Morrish DW, Maksymowych WP, Steiner IP, Harley CH, Wirzba BJ, Hanley DA, Blitz S, Russell AS. A controlled trial to increase detection and treatment of osteoporosis in older patients with a wrist fracture. *Annals of Internal Medicine* 2004 Sep 7;141(5):366-373.



Dr. Sumit Majumdar

“A wrist fracture is a sentinel event in the natural history of osteoporosis,” explains Heritage Population Health Investigator Dr. Sumit Majumdar from the University of Alberta. “It is the most common symptomatic fracture related to osteoporosis.”

Significant Bone Loss Associated with Depo-Provera Use is Sadly No Surprise; We Call For Action To Make Sure This Doesn't Happen Again.

Winnipeg, November 19, 2004

This week, the pharmaceutical company Pfizer issued letters in both Canada and the United States warning about a serious health risk to women who use their long-acting, injectable contraceptive drug, Depo-Provera.

Pfizer announced that they will be warning doctors and women and adolescents who use Depo-Provera that the drug may cause a significant loss of bone mineral density, that the loss increases with duration, and that the loss may not be completely reversible.

In other words, these women and girls face an increased risk of developing osteoporosis and the fractures associated with the condition. Pfizer also announced that studies on the impact of bone loss during this key period in young women are ongoing.

These warnings come as no surprise to the women's health groups who, in the early 1980's, were already raising concerns about Depo-Provera, its risks to women's health and autonomy, and the troubling circumstances under which the drug was being tested and used.

The history of Depo-Provera's approval in Canada is yet another example of the weaknesses in Canada's drug approval system, a system that is supposed to protect the health of Canadians-including women.

The approval and marketing of Depo-Provera in Canada speaks to a lack of women-sensitive research, the absence of rigorous, transparent drug review and post marketing surveillance processes, and the hazards of ignoring community voices. We are angry and feel betrayed by this latest example of women being used as guinea pigs without their knowledge or consent. Just as with hormone replacement therapy, it has been women's health groups to first ring the alarm bells about our own health issues.

Health Canada approved Depo-Provera for use as a contraceptive in April 1997 after several previous applications by the manufacturer had been denied due to concerns being raised by independent researchers and community groups.

Six years earlier, the Canadian Coalition on Depo-Provera sent a letter to Benoit Bouchard, then National Minister of Health and Welfare, pointing out the risks of osteoporosis identified in a study conducted in New Zealand in 1991 and published in the British Medical Journal which noted a decrease in bone density in Depo users, thereby increasing their risk factor for osteoporosis, a condition that is a significant

health risk for Canadian women.

Yet Depo was widely promoted by health professionals to young women and Pfizer was even allowed to advertise its product directly to consumers, something that is illegal in Canada.

We ask, why have we had to wait for thirteen years for the drug company and the government to acknowledge these risks?

How many women and adolescent girls have been unnecessarily exposed to an increased risk of osteoporosis as a result of using Depo-Provera? And who will take responsibility for any resulting fractures? It is important that we learn from this error. Hormone replacement therapy, Vioxx, and Depo-Provera are stories about drugs that all indicate the need for a serious review of Canada's drug approval and monitoring systems. Action is required.

We call on:

1. Health Canada and the Standing Committee on Health to hold hearings to review the history of the use, approval and post marketing surveillance of Depo-Provera.
2. Pfizer Canada to establish an independently managed compensation fund. Calcium supplements and vitamin D to build bone strength, extra calcium-rich food, exercise programs to increase bone mass, monitoring by health care professionals and possible health care all have costs. We call on Pfizer Canada to use its profits from the sale of Depo-Provera to cover the costs that women and Canada's health care system will have to assume.
3. Provincial and federal governments to seek reimbursement from Pfizer for the health costs of caring for women who have been put at risk for this drug.
4. Provincial and federal governments to immediately put in place community based educational programs for women who have been using Depo-Provera.
5. Pfizer to establish an independent health research program to support a community based research program for women's health.

Our past history clearly demonstrates that women's health groups can be far more reliable and informed source than either the drug companies or Health Canada. We ask how we can prevent this from happening again?

Contact:

Madeline Boscoe, Executive Director, Canadian Women's Health Network and co-founder Canadian Coalition on Depo-Provera. Cell 204-295-2946

This week, the pharmaceutical company Pfizer issued letters in both Canada and the United States warning about a serious health risk to women who use their long-acting, injectable contraceptive drug, Depo-Provera

The Osteoporosis Care Gap in Canada

Osteoporosis has been described as a silent disease until an individual experiences a broken bone, typically occurring at the wrist, vertebra or the hip. Fractures occurring as a result of osteoporosis are often called fragility fractures because they usually occur during an event that would not normally cause a fracture. An example would be breaking a hip or wrist during a fall from standing height, or experiencing a spine fracture during coughing. Having a fragility fracture is a major risk factor for osteoporosis. If a person has a fragility fracture after the age of 40 years, their risk for future fracture increases by 2 to 9 times (2; 11). Newer drug therapies can reduce the number of new spine fractures by 40-60% within the first year of drug treatment in individuals with a fracture (1). Despite the availability of tools for osteoporosis diagnosis and of effective treatments, recent research conducted in several different countries revealed that many individuals who experience fragility fractures are not being diagnosed or treated for osteoporosis (3).

Five studies conducted in Canadian hospitals found that the number of people with fragility fractures who were tested for osteoporosis was less than 50%, and in most cases, much less (8). In addition, 50 to 98.5% of individuals with fragility fractures received no treatment for osteoporosis. Depending on the study, only 7.6% to 32% of people with fragility fractures were given calcium supplements (8). Vitamin D supplementation occurred in only 2.8% to 13% of patients despite research that showed that as many as 34% of Canadians are vitamin D deficient (<40nmol/L) (10). Even more concerning is that approximately 18.4% to 40% of patients in three of the studies had already experienced a fracture previously, indicating that adequate osteoporosis diagnosis and treatment may not even occur after a person has had more than one fracture (5-7). These studies revealed that up to 14% of patients experienced another fracture within 1 to 3 years.

Currently there is a care gap in that patients with fractures are not being assessed and treated for osteoporosis. A diagnosis of osteoporosis has been shown to increase the number of individuals who are treated with fractures and may prompt both patients and physicians to act. The proportion of postmenopausal women at an Ottawa hospital receiving osteoporosis therapy increased from 15.2% to 63.3% after they were diagnosed with osteoporosis (4). Patients who experienced a hip fracture in Alberta and were diagnosed with osteoporosis were more likely to receive treatment (48% vs. 5.5%) (6).

Future research and education approaches should include strategies to address barriers to the diagnosis and treatment of osteoporosis. Improved communication between orthopaedic surgeons, specialists, family physicians and patients with respect

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to osteoporosis follow-up may reduce the care gap. Educational tools for patients and their families may increase awareness about osteoporosis and prompt patients to seek osteoporosis screening from their doctors (9). Individuals over 40 years of age who present with fragility fractures should trigger a process of osteoporosis diagnosis and treatment in order to reduce the risk of another fracture in the future.

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The Surgeon General issues first-ever report on nation's bone health

By 2020, One In Two Americans Over Age 50 Will Be At Risk For Fractures From Osteoporosis Or Low Bone Mass

The Surgeon General issues first-ever report on nation's bone health

U.S. Surgeon General Richard H. Carmona, M.D., M.P.H., F.A.C.S., warned today in a new report that by 2020, half of all American citizens older than 50 will be at risk for fractures from osteoporosis and low bone mass if no immediate action is taken by individuals at risk, doctors, health systems, and policymakers. This new report, "Bone Health and Osteoporosis: A Report of the Surgeon General" says that 10 million Americans over the age of 50 have osteoporosis, the most common bone disease, while another 34 million are at risk for developing osteoporosis. And each year, roughly 1.5 million people suffer a bone fracture related to osteoporosis.

This report is the first-ever Surgeon General's report on the topic of bone health. Osteoporosis and other bone diseases, such as Paget's disease and osteogenesis imperfecta can lead to a downward spiral in physical health and quality of life, including losing the ability to walk, stand up, or dress, and can lead to premature death.

"This report will shape the way we approach, talk, and act about bone diseases," HHS Secretary Tommy G. Thompson said. "The more we learn, the more we realize that so many diseases are preventable, from obesity, to many types of cancer, and now bone disease. I want to thank Dr. Carmona and all the scientists and researchers who worked on this report. I look forward to the impact this new information will make in the health of communities."

Other findings in the report include:

About 20 percent of senior citizens who suffer a hip fracture die within a year of fracture.

About 20 percent of individuals with a hip fracture end up in a nursing home within a year.

Hip fractures account for 300,000 hospitalizations each year.

The direct care costs for osteoporotic fractures alone are already up to \$18 billion each year. That number

is expected to increase if action to prevent osteoporosis is not taken now.

"Osteoporosis isn't just your grandmother's disease. We all need to take better care of our bones," Dr.

Carmona said. "The good news is that you are never too old or too young to improve your bone health. With healthy nutrition, physical activity every day, and regular medical check-ups and screenings, Americans of all ages can have strong bones and live longer, healthier lives. Likewise, if it's diagnosed in time, osteoporosis can be treated with new drugs that help prevent bone loss and rebuild bone before life-threatening fractures occur."

According to the new report, osteoporosis is a "silent" condition because many Americans are unaware that their bone health is in jeopardy. In fact, four times as many men and nearly three times as many women have osteoporosis than report having the condition. One of the most dangerous myths about osteoporosis is that only women need to worry about bone health. Osteoporosis affects men and women of all races, and while bone weakness manifests in older Americans, strong bones begin in childhood.

The Surgeon General's report is a call for Americans to take action to improve and maintain healthy bones. The report includes recommendations on what Americans can do to decrease the likelihood of developing osteoporosis.

These recommendations include:

Getting the recommended amounts of calcium and vitamin D. High levels of calcium can be found in milk, leafy green vegetables, soybeans, yogurt and cheese. Vitamin D is produced in the skin by exposure to the sun and is found in fortified milk and other foods. For individuals who are not getting enough calcium and vitamin D in the diet, supplements may be helpful. The average adult under 50 needs about 1000mg of calcium per day and 200 International Units (IU) of Vitamin D (one cup of vitamin D fortified milk provides 302 mg of calcium and 50 IU of Vitamin D).

Maintaining a healthy weight and being physically active at least 30 minutes a day for adults and 60 minutes a day for children, including weight-bearing activities to improve strength and balance.

Taking steps to minimize the risk of falls by removing items that might cause tripping, improving lighting,

and encouraging regular exercise and vision tests to improve balance and coordination.

"I always worried about heart disease and cancer, but was never concerned about the health of my bones," said Abby Perelman, who is being treated for osteoporosis. "I wish I knew then what I know now -- that a healthy diet and physical activity can make bones stronger and healthier."



Canadian Athletic Therapists Association Annual Conference

is being hosted and held in Alberta. Please see CATA website at www.aata.ca, click on the CATA and then Conferences for further information.



The Arthritis Society announces that there is now CARE III Patient Survey is online. The objectives of the survey are to understand the use of non-pharmacological care by people with arthritis and issues that are important to individuals concerning non-pharmacological treatments. **CARE III Patient Survey NOW ON-LINE**

The questionnaire can be accessed by clicking the following links:

English: www.arthritis.ca/surveys Then follow the link under **“CARE III”**

French: www.arthrite.ca/sondages Then follow the link under **“La conférence “CARE III”**

People with arthritis or parents of children with arthritis around the country are encouraged complete this survey. If you know a patient organizations who would like a voice in arthritis care, feel free to distribute this information to those organizations.

BONE HEALTH (continued from page 13)

The report also calls on health care professionals to help Americans maintain healthy bones by evaluating risks for patients of all ages, recommending bone density tests for women over the age of 65 and for any man or woman who suffers even a minor fracture after the age of 50. In addition, the report calls on health care professionals to look for “red flags” that may indicate that someone is at risk, including people who are under

50 who have had multiple fractures, or patients who take medications or have a disease that can lead to bone loss.

“All health care professionals need to be aware of the early indicators of bone disease,” said Dr. Lawrence Raisz of the University of Connecticut Health Center, one of the scientific editors of the report. “Many of my patients had no idea their minor fracture was an indication of a larger problem. The health care system can do a better job of helping patients protect themselves from bone disease.”

In addition to the release of the report, the Surgeon General has published a companion “People’s Piece” specifically written for the American people. The magazine-style, full-color booklet offers ready-

to-use information on how people can improve their bone health.

This is the second People’s Piece that Dr. Carmona has produced as part of his commitments to improving the health literacy of Americans and providing the best scientific information available in a way that everyone can understand and use to live longer, healthier lives.

The first People’s Piece discussed the health consequences of smoking and was released in May 2004.

The free People’s Piece, The 2004 Surgeon General’s Report on Bone Health and Osteoporosis: What It Means To You, is available by calling toll free 1-866-718-BONE or visiting www.surgeongeneral.gov

“Thirty years ago, doctors thought weak bones and osteoporosis were a natural part of aging, but today we know they are not. We can do a lot to prevent bone disease,” said Dr. Carmona. “Everyone has a role to play in improving bone health, and this report is a starting point for national action on bone health. Let’s get started by taking action today in homes, health care settings, and communities across our nation.”

BEST FACE FORWARD

website brings new resources to patients and professionals

by Dennis Jeanes

The website address may be familiar — www.canorth.org — but, as of October 12, once you arrive at the Foundation's home page, all is new. Murky blue has been replaced by bright white-space, defined by the Foundation's new visual identity (which we announced last issue) and upbeat portraits of people of all ages. The site's basic architecture has been laid out, and there are information streams for patients and professionals, fund-raisers and donors, volunteers and advocates. Resources are easily available to visitors looking for information, arranged in a vertical menu on the left. The format is maintained throughout, so that as new services and content come on-line in the future users will intuitively know where to find them.

Under "Patient Resources & Support," people who need orthopaedic services can find information that complements and reinforces the direction given to them by their surgeons. They'll find guidance on what to expect before, during and after surgery, as well as articles about specific musculoskeletal conditions and how they are treated. A click on a sub-menu, and users are connected to an archive of recent news articles about orthopaedic surgery and such ongoing issues as wait times. Further down at the bottom of the main menu under "Patient Advocacy," people can easily connect with their MPP using E-Activist.

Grouped under "Research and Grants," orthopaedic professionals will find a sub-menu to connect them to grant applications, where they can download an MS Word CV module and an application in pdf format. Results of the annual peer review of those applications are also available at a sub-menu, where the award-winning projects are available in pdf format.

Fund-raisers who want to participate in Foundation activities are provided the contact information for the nearest *Hip Hip Hooray!* event. Donors can download a pdf format form that provides them with chequing or credit-card payment options, as well as choices about one-time or repeat donations. They can also find out how the Foundation invests their donations to further orthopaedic research,

education and care in Canada.

The site offers people who want to volunteer for the Foundation a variety of roles, from joining a *Hip Hip Hooray!* committee to starting a new one to speaking to small groups or sharing personal experience with new patients. Advocates on behalf of the Foundation can find position statements on various public-policy issues, such as surgical wait times, improved access to medical innovation and cross-border internet pharmacies.

Building the new website was a significant challenge, done with cost conservation in mind. Infinet Communications undertook much of the design work at cost, and Foundation staff wrote the content. "It was truly a team effort," says Debbie Gates, Communication and Education Manager, "and the resulting website fully reflects the Foundation's focus on bringing resources to help our different stakeholders."

Over time the website will provide real value for money, since it provides the Foundation with a visible presence and tremendous reach, without the high costs of print or video production. On the other hand, there's an inherent temptation in the medium to create an outsized website, disproportionate to stakeholder needs, which can quickly become a sinkhole for time and money.

Although it was launched initially in English (pending translation of the final content), the website will eventually be fully bilingual and continually enhanced as money allows. "It's easy for an organization to become obsessed with putting as much as possible into their website," says Debbie, "which also means significant monetary investment. But we're realistic about what we can achieve as a charity. We'll continue to develop our website, but invest resources as need dictates. We want to provide real value to our donors, patients, and professionals – not just stuff that looks cool."

Under "Patient Resources & Support," people who need orthopaedic services can find information that complements and reinforces the direction given to them by their surgeons.



It's Your "Move"...

It's Your "Choice"

Contact Us:

The Bone and Joint Decade Canada Newsletter provides communication between affiliated members, organizations and patients.

If you would like to share an idea, an article or conference information, please contact us at:
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1-403-210-8706

BONE AND JOINT DECADE CANADA
*Healthy Bones and Healthy Joints
...Keep Canada Moving*

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Alberta Provincial CIHR Training Program in Bone and Joint Health
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Visit our Website: **BONE AND JOINT DECADE CANADA** at
www.bjdcanada.org

ACTIVITIES, UPCOMING EVENTS, and UPDATES...

Coming up in the Spring Issue of the **Bone and Joint Decade Canada Newsletter** we will be featuring Trauma related issues. The deadline for submissions is **March 30, 2005**. Articles up to 650 words will be accepted. Please include your name, title, organization and photo.

We are pleased to offer information on the 2005 Bone and Joint Decade's **WORLD NETWORK CONFERENCE**, as well as conference highlights on CATA, The Arthritis Society's CARE III On-Line Survey and the 27th Annual Training Program for Occupational and Physical Therapists Conference

Thanks to our partners and stakeholders for your continued support, and to those who contributed to this edition of the newsletter.

Please contact Dot Brown at 403-210-8706 or email at dbro@ucalgary.ca with your submissions.

