



Osteoporosis & the Older Adult

November 2018

Osteoporosis and Sarcopenia: Two Diseases or one?

https://sagelink.ca/osteoporosis_and_sarcopenia_two_diseases_or_one

This article reviews recent published evidence for common pathways explaining bone and muscle wasting in normal aging and pathological conditions.

NOGG 2017: Clinical Guideline for the Prevention and Treatment of Osteoporosis

https://sagelink.ca/NOGG_2017_CG_for_prevention_and_treatment_of_osteoporosis

This UK guideline document includes sections on fracture risk assessment, lifestyle measures in the management of osteoporosis, pharmacological interventions, duration and monitoring of bisphosphonate therapy, glucocorticoid-induced osteoporosis, osteoporosis in men, post-fracture care and recommendations.

Is Osteoporosis an Autoimmune Mediated Disorder?

https://sagelink.ca/is_osteoporosis_an_autoimmune_mediated_disorder

This review attempts to provide a comprehensive overview of the existing research examining the role played by autoantibodies in osteoporosis in order to determine the potential for further research.

Alzheimer's Disease and Osteoporosis https://sagelink.ca/AD_and_osteoporosis

The authors discuss the relationship between Vitamin D deficiency, Alzheimer's disease and osteoporosis.

Association Between Osteoporosis, Bone Mineral Density Levels and Alzheimer's Disease: A Systematic Review and Meta-analysis

https://sagelink.ca/association_between_osteoporosis_BMD_levels_and_AD

This article describes systematic literature research and meta-analysis to explore the association between osteoporosis / bone mineral density and Alzheimer's disease.

Prevalence and Determinants of Osteoporosis in Patients with Type 1 and Type 2 Diabetes Mellitus

https://sagelink.ca/prevalence_and_determinants_of_osteoporosis_in_patients_with_type_1_and_type_2_DM

Diabetes-specific parameters did not predict BMD. Fracture occurrence was similar in both diabetes groups and related to lower BMD, but seems unrelated to the threshold T-score, <-2.5 SD. These results suggest that osteoporosis, and related fractures, is a clinically significant and commonly underestimated problem in diabetes patients.

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Type 2 Diabetes and Risk of Hip Fractures and Non-Skeletal Fall Injuries in the Elderly: A Study From the Fractures and Fall Injuries in the Elderly Cohort (FRAILCO)

https://sagelink.ca/type_2_diabetes_and_hip_fractures_and_non-skeletal_fall_injuries_in_the_elderly

This article discusses a study investigating the risk of hip fractures and non-skeletal fall injuries in older men and women with and without type two diabetes.

Impact of Osteoporosis on High-Cost Chronic Diseases

https://sagelink.ca/impact_of_osteoporosis_on_high-cost_chronic_diseases

The authors sought to assess the impact of osteoporosis on health care costs for patients with chronic disease, specifically cardiovascular disease, chronic obstructive pulmonary disease, depress and diabetes mellitus in the US.

Prevalence and Comorbidity of Osteoporosis - A Cross-Sectional Analysis on 10,660 Adults Aged 50 Years and Older in Germany

https://sagelink.ca/prevalence_and_comorbidity_of_osteoporosis

This article describes a cross-sectional analysis based upon data collected from a national telephone survey. Descriptive statistical analysis and multiple logistic regression was used to examine the association between osteoporosis and age, sex, other diseases and education defined by ISCED in participants aged 50 and older.

The Effect of Chinese Martial Arts Tai Chi Chuan on Prevention of Osteoporosis: A Systematic Review

https://sagelink.ca/the_effect_of_chinese_martial_arts_Tai_Chi_Chuan_on_prevention_of_osteoporosis

The aim of this systematic review was to evaluate the evidence of the effects of Tai-Chi Chuan on bone mineral density and its potential for prevention of osteoporosis.

Balance Control in Elderly People With Osteoporosis

https://www.sagelink.ca/balance_control_in_elderly_people_with_osteoporosis

The authors discuss the evidence suggesting that muscle quality and posture alignment are crucial for balance in older adults and for preventing falls and fractures in those with osteoporosis.

Effect of Balance Training on Falls in Patients with Osteoporosis: A Systematic Review and Meta-Analysis

https://sagelink.ca/effect_of_balance_training_on_falls_in_patients_with_osteoporosis_a_systematic_review_and_meta-analysis

The authors conducted a systematic review and meta-analysis was to explore the effect of balance training on falls in patients with osteoporosis. Their findings suggest that balance training may significantly reduce the frequency of falls in patients with osteoporosis.

Predicting Falls and When to Intervene in Older People: A Multilevel Logistical Regression Model and Cost Analysis

https://sagelink.ca/predicting_falls_and_when_to_intervene_in_older_people

The authors carried out research in the UK to develop a falls risk model, using routine primary care and hospital data to identify those at risk of falls and ways to improve savings through referrals.

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Beyond Mobility Assessment: Timed up and go Test and its Relationship to Osteoporosis and Fracture Risk

https://sagelink.ca/beyond_mobility_assessment_TUG_test_and_its_relationship_to_osteoporosis_and_fracture_risk

The authors assessed the relationship between mobility status using TUG test, bone mineral density (BMD), and different fracture risks predicted by different tools. Poor timed up and go test results are associated with lower bone mineral density and higher estimated ten year fracture risk.

Effect of a Balance-Training Programme on Postural Balance, Aerobic Capacity and Frequency of Falls in Women with Osteoporosis: A Randomized Controlled Trial

https://sagelink.ca/effect_of_a_balance_training_programme_on_postural_balance_aerobic_capacity_and_frequency_of_falls

This article describes a randomized controlled trial where an intervention group was assigned to a 12 month exercise program (3 times a week for 30 min. sessions) and a control group with no intervention with osteoporotic women who had at least one previous fracture.

The Effectiveness of a Basic Exercise Intervention to Improve Strength and Balance in Women with Osteoporosis

https://sagelink.ca/the_effectiveness_of_a_basic_exercise_intervention_to_improve_strength_and_balance_in_women_with_osteoporosis

This research article describes a study investigating the effects of a simple exercise program on the balance and strength of postmenopausal women with osteoporosis.

The Effect of an Educational Program Based on Health Belief Model on Preventing Osteoporosis in Women

https://sagelink.ca/the_effect_of_an_educational_program_based_on_health_belief_model_on_preventing_osteoporosis_in_women

The authors describe a study which investigated the effectiveness of knowledge, walking and diet on bone mass utilizing the Health Belief Model.

Comparison Between Frailty Index of Deficit Accumulation and Phenotypic Model to Predict Risk of Falls: Data From the Global Longitudinal Study of Osteoporosis in Women (GLOW) Hamilton Cohort

https://sagelink.ca/comparison_between_frailty_index_of_deficit_accumulation_and_phenotypic_model_to_predict_risk_of_falls

This publication describes an investigation of the predictive accuracy of the frailty index of deficit accumulation and the phenotypic frailty model at predicting fall and fracture risk in women 55 years and older.

Frailty Index of Deficit Accumulation and Falls: Data from the Global Longitudinal Study of Osteoporosis in Women (GLOW) Hamilton Cohort

https://sagelink.ca/frailty_index_of_deficit_accumulation_and_falls

The authors investigated the association between frailty index (FI) or deficit accumulation and risk of falls, fractures, death and overnight hospitalization in women 55 years and older utilizing data from the Global Longitudinal Study of Osteoporosis in Women (GLOW) Hamilton cohort.

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When, Where and How Osteoporosis-Associated Fractures Occur: An Analysis From the Global Longitudinal Study of Osteoporosis in Women (GLOW)

https://sagelink.ca/when_where_and_how_osteoporosis-associated_fractures_occur

The authors analyzed data from the Global Longitudinal Study of Osteoporosis in Women (GLOW) to examine when, where and how fractures occur in postmenopausal women.

Osteoporosis in Frail Patients: A Consensus Paper of the Belgian Bone Club

https://sagelink.ca/osteoporosis_in_frail_patients

In this consensus paper, the Belgian Bone Club aims to provide a state of the art on the epidemiology, diagnosis, and management of osteoporosis in frail individuals, including patients with anorexia nervosa, patients on dialysis, cancer patients, persons with sarcopenia, and the oldest old.

Osteoporotic Fractures and Obesity Affect Frailty Progression: A Longitudinal Analysis of the Canadian Multicentre Osteoporosis Study

https://sagelink.ca/osteoporotic_fractures_and_obesity_affect_frailty_progression

The authors explored the effects of modifiable and non-modifiable factors on changes in frailty in community-dwelling adults aged 50+ years who participated in the Canadian Multicentre Osteoporosis Study (CaMos).

Falls Predict Fractures Independently of FRAX Probability: A Meta-Analysis of the Osteoporotic Fractures in Men (MrOS) Study

https://sagelink.ca/falls_predict_fractures_independently_of_FRAX_probability

The authors investigated the three Osteoporotic Fractures in Men (MrOS) Study cohorts to see if past falls predicted future fracture independently of FRAX and whether these associations varied with age and follow-up time.

Low Testosterone, but not Estradiol, is Associated With Incident Falls in Older Men: The International MrOS Study

https://www.sagelink.ca/low_testosterone_but_not_estradiol_is_associated_with_incident_falls_in_older_men

The aim of this study was to assess the associations between serum testosterone and estradiol and the likelihood of falls in older men, 65 years and older

Osteoporosis in Men

https://www.sagelink.ca/osteoporosis_in_men

This publication provides an overview of what is known about osteoporosis in men. Sex differences in treatment options are included.

Concise Review: Musculoskeletal Stem Cells to Treat Age-Related Osteoporosis

https://sagelink.ca/concise_review_musculoskeletal_stem_cells_to_treat_age-related_osteoporosis

This article reviews the physiological basis of age-related osteoporosis and discusses relevant preclinical studies that use exogenous musculoskeletal stem cell transplantation with the aim of treating osteoporosis in murine models.

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Glucocorticoid-induced Osteoporosis

https://sagelink.ca/glucocorticoid-induced_osteoporosis_review_2015

This review provides a comprehensive look at considerations regarding glucocorticoid-induced osteoporosis.

Glucocorticoid-induced Osteoporosis: An Update

https://sagelink.ca/glucocorticoid-induced_osteoporosis_update_2018

This review focuses on recent developments in the understanding of epidemiology, pathophysiology and management of glucocorticoid-induced osteoporosis and the implications for clinical practice.

Low-Grade Chronic Inflammation Perpetuated by Modern Diet as a Promoter of Obesity and Osteoporosis

https://sagelink.ca/low_grade_chronic_inflammation_perpetuated_by_modern_diet_as_a_promoter_of_obesity_and_osteoporosis

This review describes the changes in modern diet with regard to several nutrients, particularly addressing the type and amount of consumed fat; b) explain the shortcomings of the modern diet with regard to inflammatory processes; and c) delineate the reciprocity between adiposity and inflammatory processes and the link that connects obesity, osteoporosis, and inflammation. The authors present the hypothesis that omega-6 (n-6) polyunsaturated fatty acids (PUFA) propagate obesity and osteoporosis by increasing/maintaining low-grade chronic inflammation (LGCI), ultimately shifting the commitment of mesenchymal stem cells (MSC) toward increased adipogenesis.

Greater Intake of Fruit and Vegetables is Associated with Greater Bone Mineral Density and Lower Osteoporosis in Middle-Aged and Elderly Adults

https://sagelink.ca/greater_intake_of_fruit_and_veg_is_associated_with_greater_BMD_and_lower_osteoporosis

This article describes the research which found an association between fruit and vegetable intake with higher bone mineral density and lower osteoporosis in elderly Chinese subjects.

Low Vegetable Intake Increases the Risk of Fall-Related Fragility Fracture in Postmenopausal Taiwanese Women, a Prospective Pilot Study in the Community

https://sagelink.ca/low_vegetable_intake_increases_the_risk_of_fall-related_fragility_fracture

This article describes a prospective study investigating the relationship between lifestyle factors, particularly nutritional intake and the incidence of fall-related fragility fractures in postmenopausal women.

Vitamin D and Osteoporosis in Chronic Kidney Disease

https://sagelink.ca/vitamin_D_and_osteoporosis_in_chronic_kidney_disease

This article describes the pathophysiology of osteoporosis in chronic kidney disease and the increased risk of fractures.

Vitamin D: Link Between Osteoporosis, Obesity, and Diabetes?

https://sagelink.ca/vitamin_D_link_between_osteoporosis_obesity_and_diabetes

This article discusses the hormonal action of Vitamin D and its effects on bone metabolism and control of obesity and diabetes.