### SUMMERVILLE

**Family Health Team** 

# OSTEOARTHRITIS 101

February 25, 10 a.m.

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This session is reserved for the sharing of less sensitive information, mainly, educational materials relating to nutrition, exercise and stress management

Virtual sessions do have some inherent privacy and security risks that there is a chance your personal log-in information may be intercepted or unintentionally disclosed

It is possible that there could be a problem with the technology and your session could be cut short and/or interrupted

We will not be recording the session, and ask that you not record the session, either



Keep your microphone muted unless you would like to share

Speak up when invited, to ask a question verbally

Your participation is encouraged!

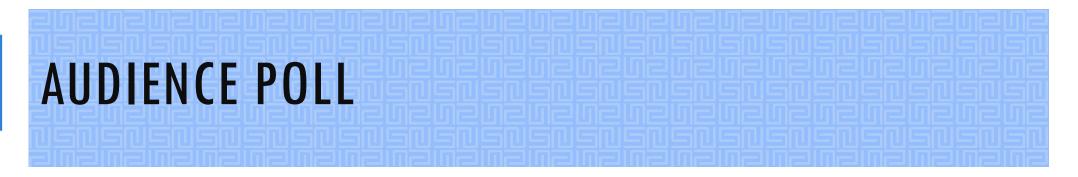
Interactive Opportunities

- Polls and questions click and submit!
- Chatbox type in your question and choose to send to "everyone" or direct it to the facilitator

### OSTEOARTHRITIS - 101



https://www.jokejive.com/topic/knee+surgery#&gid=1&pid=2



Age of participants

- A) 0 19 years of age
- B) 20 49 years of age
- C) 50 69 years of age
- D) 70 89 years of age
- E) 90 years of age or older



Who is at risk?

What is Osteoarthritis (OA) and where does it happen?

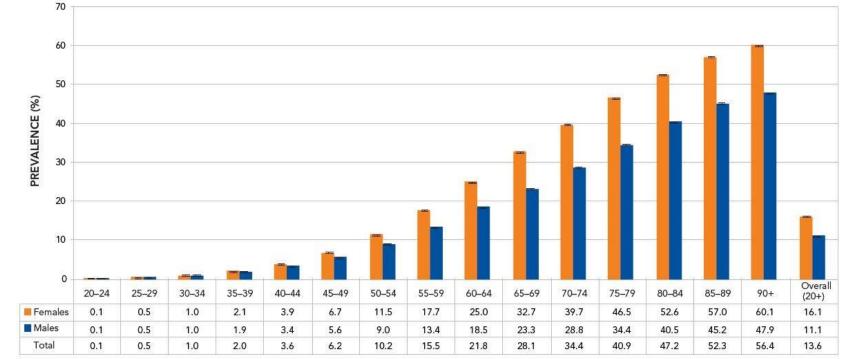
What is not Osteoarthritis?

### WHO MAY HAVE OSTEOARTHRITIS (OA)?

- 13.6 % of Canadians 20 years of age and older
- ~ 40% of those aged 70-74 years of age OA
- $\hfill \hfill \hfill$



- increasing age
- women > men
- medically obese persons
- family history
- history of joint injury

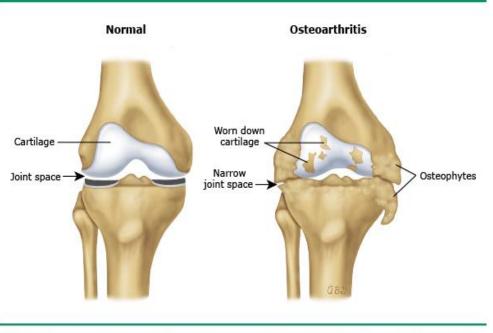


AGE GROUP (YEARS)

# WHAT IS IT?

- Balance between cartilage synthesis and destruction is lost
- Leads to the breakdown of cartilage
- May lead to:
  - bone spurs formation around joint edges
  - space between joints becoming smaller
  - symptoms of pain, stiffness, and swelling
  - joint(s) not working properly

#### Knee osteoarthritis

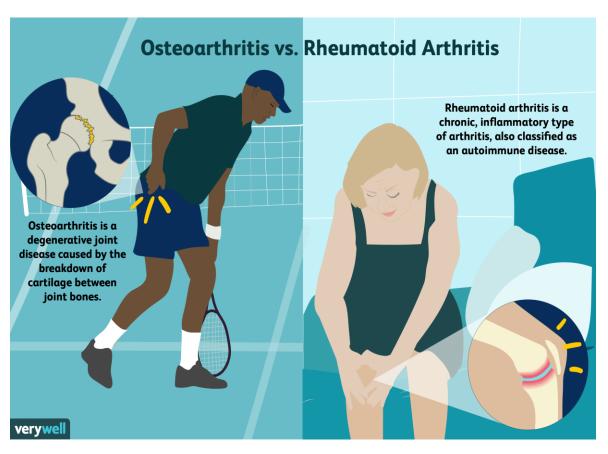


This drawing shows a normal knee joint next to a knee joint with osteoarthritis (OA). In the OA joint, the cartilage covering the ends of the bones roughens and becomes thin, while the bone underneath the cartilage grows thicker. Bony growths called "osteophytes" can form. The space between the bones also becomes narrower.

Copyrights: apply

## WHAT IS IT NOT?

- Not rheumatoid arthritis
  - Immune mediated arthritis
- Not gout
  - Build up of uric acid crystals in the joint



https://www.verywellhealth.com/osteoarthritis-vs-rheumatoid-arthritis-2552097

## WHERE DOES IT OCCUR?

#### Often occurs in the

- knee
- hip
- certain joints of the hands
- certain areas of the vertebrae

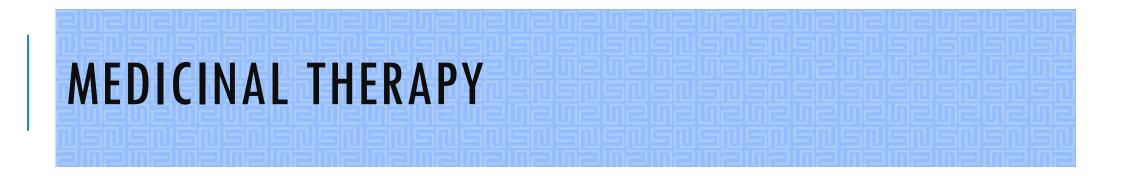


https://arktosdirectcare.com/2018/12/13/prolotherapy-injections-osteoarthritis/



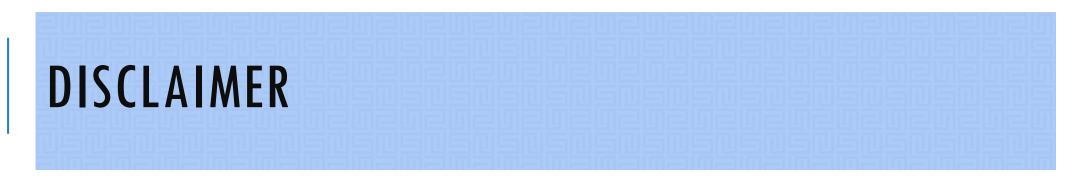
### What do you do to help your arthritis pain?





Have you tried anything in the past?

Did your doctor or other healthcare professional recommend anything?



- Information provided is for general knowledge, please discuss use of any products with your physician
- Drug and disease interactions are not included in this presentation
- A discussion of choices during pregnancy, breastfeeding, or non-adults is not included and use of therapies discussed may not be suitable in these populations
- Evidence for the effectiveness of the natural products discussed can differ
- In general, for many natural products there is less information known about them as compared to prescription products

### **TOPICAL AGENTS**

Nonsteroidal Anti-inflammatories

- Diclofenac (Voltaren Emulgel, Voltaren Emulgel XS, Pennsaid)
- Compounded preparations (diclofenac, ketoprofen..)
- Less exposure to drug than if taken by mouth

Capsaicin (Zostrix)

- Derived from hot peppers
- May cause some burning or itching of the skin

Avoid applying on broken skin Avoid getting product into the eye or mucous membranes Avoid covering with dressing or placing heating devices on skin after applying product





### **MEDICINAL THERAPY - BY MOUTH**

Acetaminophen (Tylenol, Tylenol ES, Tylenol Arthritis)

• Plain acetaminophen

- May be found in some cough and cold or pain products
- Avoid if you have liver problems or drink alcohol regularly and have not consulted with a healthcare professional



### **MEDICINAL THERAPY - BY MOUTH**

Nonsteroidal anti-inflammatories

- OTC ibuprofen (Advil, Motrin), naproxen (Aleve)
- May be found in some cough and cold products
- Avoid if you have kidney problems, heart failure, history of GI ulcer or bleed
- Consult with a healthcare professional prior to use if you have a history of heart or vascular problems such as stroke

Take with food

• Rx - include celecoxib, meloxicam, and other agents



### **MEDICINAL THERAPY**

Duloxetine (Cymbalta)

- May also provide benefit for mood issues or nerve pain
- Mostly studied in knee OA

Partial and Pure Opioids (tramadol, codeine, hydromorphone...)

- Tramadol, codeine, and oxycodone may be found in combination with acetaminophen
- Potential for dependence/addiction, tolerance to pain reducing effects, and increased risk of falls
- May cause constipation, sedation or nausea



## THERAPY - INJECTABLES



#### Steroids

triamcinolone (Kenalog 10), methylprednisolone (Depo-Medrol), betamethasone (Celestone Soluspan)

• limited number of injections per year

minimize activity and stress on the joint for several days following injection

### Hyaluronic acid

#### sodium hyaluronate

- naturally found in cartilage
- number of injections differs depending on product and joint

## NATURAL PRODUCTS — BY MOUTH

### Glucosamine

- The sulfate form is preferred over the hydrochloride form
- may take up to 2 months to see an effect

Chondroitin

Methysulfonylmethane (MSM)

Combination products may be found containing

glucosamine – chondroitin or glucosamine – chondroitin – MSM

Be sure to pick ones that have an NPN number

### NATURAL PRODUCTS

Cannabis

- Not a lot of evidence for effectiveness in OA
- Potential for addiction, anxiety, psychosis, dependence, tolerance to effects

Avoid if you have a history of psychiatric illness or substance use issues

Avoid if under the age of 25

Avoid smoking cannabis

Avoid if pregnant or planning to become pregnant or breastfeeding

Abide by driving laws and restrictions

Medical cannabis to avoid variation in formulation and dosage

### NATURAL PRODUCTS

Government of Ontario

- Not allowed to have any cannabis in your system if you
  - are 21 or under
  - have a G1, G2, M1 or M2 license
  - are driving a vehicle that requires an A-F driver's license or Commercial Vehicle Operator's Registration (CVOR)
  - are driving a road-building machine

"Since the effects of cannabis vary, there is no way to know exactly how long to wait before it's safe to drive. Even if you think the high has worn off, your ability to drive may still be impaired"



Audience Poll: I do the following

- A) Walk or do pool exercises
- B) Tai Chi
- C) Use a cane or walker
- D) Other exercise or forms of support

### **EXERCISES AND AIDS**



- Exercise can include walking, strength training, and pool exercises
- Weight loss for knee and hip OA
- Tai Chi for hip and knee OA

https://www.skyscap.com/exercise-for-seniors/

### **EXERCISES AND AIDS**

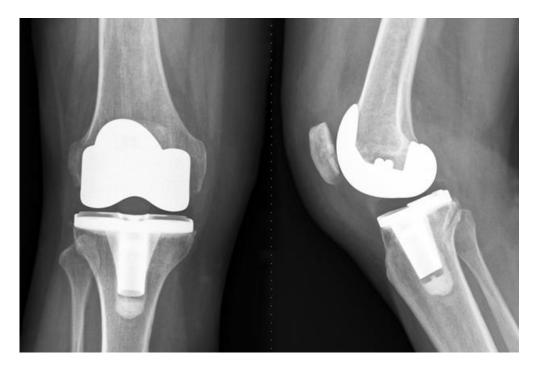
Support Devices and Aids:

- Canes, walkers, tub and shower bars
- Splints and braces
- Easy open caps for medication.
  - Store away from children to prevent poisoning



#### Arthroplasty (joint replacement)

- Total replacement
- Partial replacement



Total knee replacement https://www.gponline.com/total-knee-replacement/musculoskeletal-disorders /musculoskeletal-disorders/article/1406657

# HEALTHCARE PROFESSIONALS

- Physicians
- Nurse Practitioners
- Pharmacists
- Physical therapists
- Occupational therapists



• The Arthritis Society

https://arthritis.ca/

• Ontario Ministry of Health and Long Term Care Assistive Devices Program <u>https://www.ontario.ca/page/assistive-devices-program</u>

416-327-8804

Toll-free: 1-800-268-6021

### QUESTIONS?

### THANK YOU FOR YOUR TIME