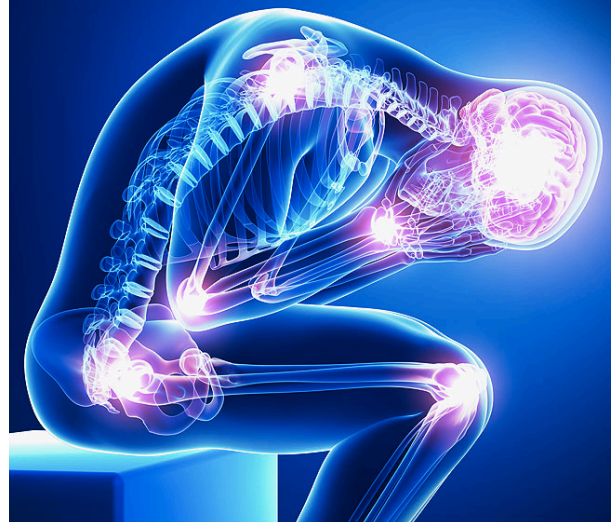
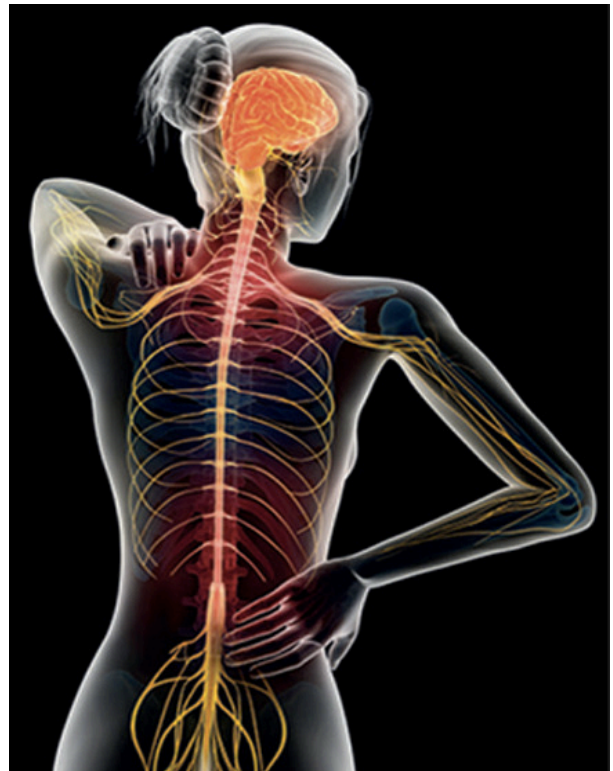


All information, content, and material of this website / handout is for informational purposes only and are not intended to serve as a substitute for the consultation, diagnosis, and/or medical treatment of a qualified physician or healthcare provider. The information is not intended to recommend the self-management of health problems or wellness. It is not intended to endorse or recommend any particular type of medical treatment. Should the reader have any health care related questions, that person should promptly call or consult your physician or healthcare provider. This information should not be used by any reader to disregard medical and/or health related advice or provide a basis to delay consultation with a physician or a qualified healthcare provider.

Individual Differences in Pain

- The prevalence of **chronic pain** in patients is increasing over time. This means the number of individuals who are suffering from pelvic pain is higher now than it ever has been before.
- Treatment options for chronic pain include medications, surgeries/procedures, psychological treatments, and physical treatments such as physical therapy. One or two of these options alone is often not sufficient to treat chronic pain, and pain can persist after trying one or more of these options.
- No two persons will experience pain or pain conditions in the same way. Everyone experiences pain differently. Therefore, each individual will also have varying levels of improvement to different treatment options for their pain.



All information, content, and material of this website / handout is for informational purposes only and are not intended to serve as a substitute for the consultation, diagnosis, and/or medical treatment of a qualified physician or healthcare provider. The information is not intended to recommend the self-management of health problems or wellness. It is not intended to endorse or recommend any particular type of medical treatment. Should the reader have any health care related questions, that person should promptly call or consult your physician or healthcare provider. This information should not be used by any reader to disregard medical and/or health related advice or provide a basis to delay consultation with a physician or a qualified healthcare provider.

- Two reasons for individual differences in pain include:
 - **Quantitative differences** – Some people have more pain than others
 - **Qualitative differences** – Some people have pain for different reasons than others
- People may be clustered into groups based on how they experience their chronic pain. These clusters include:
 - **Adaptive Cluster** – People who have lower sensitivity to pain (feel pain less) and have low psychological distress
 - **Pain Sensitive Cluster** – People who have higher sensitivity to pain (feel pain sensations more) but have low psychological distress
 - **Global Symptoms Cluster** – People who have higher sensitivity to pain (feel pain sensations more) and have high psychological distress

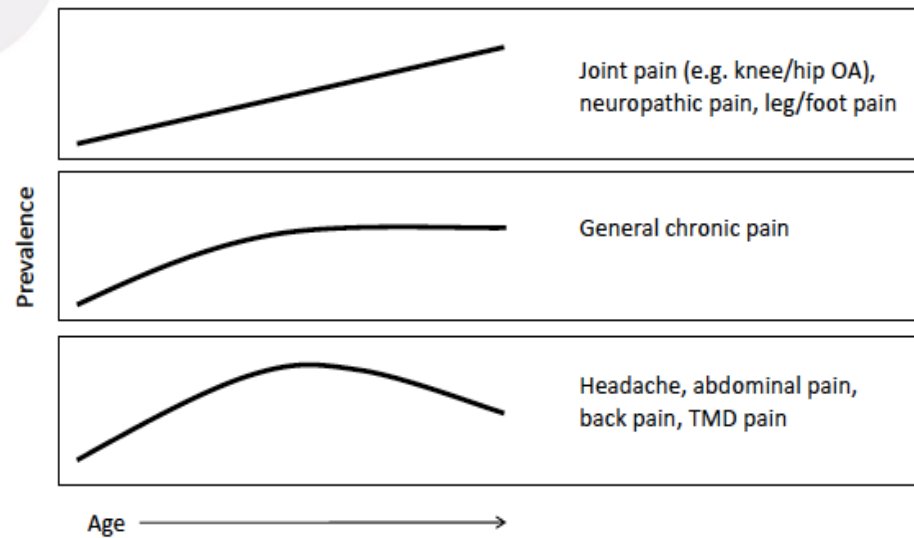
Who is at higher risk for having chronic pain?

- **Females** are more likely to have chronic pain than males. This includes back pain, migraines, musculoskeletal pain, neuropathic pain, and oral pain. Treatment options may also be less successful for females than males in treating their pain. Contributions to the sex differences may be genetic, hormonal, social and/or environmental.
- There are racial and ethnic differences in chronic pain. **Native American** and **multiracial** adults are most likely to have chronic pain. While the prevalence of pain among **Black, White, and Hispanic** individuals is similar, non-Hispanic Black patients may have more severe pain and disability as a result of their pain. Black patients may also have a higher burden of pain because their pain and environmental contributors to pain are often undertreated.
- There is a **genetic** component to pain. Individuals may inherit certain genes (i.e. *COMT* gene and *OPRM1* gene) making them more likely to have chronic pain and pain-related conditions.

All information, content, and material of this website / handout is for informational purposes only and are not intended to serve as a substitute for the consultation, diagnosis, and/or medical treatment of a qualified physician or healthcare provider. The information is not intended to recommend the self-management of health problems or wellness. It is not intended to endorse or recommend any particular type of medical treatment. Should the reader have any health care related questions, that person should promptly call or consult your physician or healthcare provider. This information should not be used by any reader to disregard medical and/or health related advice or provide a basis to delay consultation with a physician or a qualified healthcare provider.

- The prevalence of certain types of chronic pain increases with **older age**. Joint pain such as knee or hip osteoarthritis, neuropathic (nerve) pain, and leg/foot pain is likely to increase with increasing age. The prevalence of general chronic pain often plateaus starting at middle-age. Headache, abdominal and back pain is usually the worst in middle-age.

Prevalence of Age-Related Pain



- **Psychological factors** are associated with chronic overlapping pain conditions (COPCs). The more chronic pain conditions someone has, the more likely they are to also have depression, anxiety, or other psychological conditions. This suggests that chronic pain conditions take a psychological toll on people.

All information, content, and material of this website / handout is for informational purposes only and are not intended to serve as a substitute for the consultation, diagnosis, and/or medical treatment of a qualified physician or healthcare provider. The information is not intended to recommend the self-management of health problems or wellness. It is not intended to endorse or recommend any particular type of medical treatment. Should the reader have any health care related questions, that person should promptly call or consult your physician or healthcare provider. This information should not be used by any reader to disregard medical and/or health related advice or provide a basis to delay consultation with a physician or a qualified healthcare provider.

Biopsychosocial Model of Pain

- There are many factors that play into the differences in pain experiences amongst individuals. Some of these include the type of pain someone is having, where it is located in the body, how they perceive that pain, how that pain is being processed by the nerves and the brain, and genetics.
- Each person's experience of pain is formed by complex interactions of biological, social, and psychological factors.
- **Biological factors** that influence one's pain perception include:
 - Severity of disease
 - Body's inflammation levels
 - Brain function
 - Nociception (how pain stimuli are communicated throughout a person's nervous system)
- **Social factors** that influence one's pain perception include:
 - Social environment
 - Economic factors
 - Social support
- **Psychological factors** that influence one's pain perception include:
 - Mood
 - Cognition and coping ability
 - Stress in one's life and one's body
 - Degree to which someone magnifies pain, feels helpless as a result of the pain, or is unable to inhibit pain-related thoughts – this is collectively known as *catastrophizing pain*
 - The ability to adapt to external and internal pressures or threats – this is known as *resilience*

All information, content, and material of this website / handout is for informational purposes only and are not intended to serve as a substitute for the consultation, diagnosis, and/or medical treatment of a qualified physician or healthcare provider. The information is not intended to recommend the self-management of health problems or wellness. It is not intended to endorse or recommend any particular type of medical treatment. Should the reader have any health care related questions, that person should promptly call or consult your physician or healthcare provider. This information should not be used by any reader to disregard medical and/or health related advice or provide a basis to delay consultation with a physician or a qualified healthcare provider.

Implications on Treatment

- Understanding that there are individual differences in pain is critical to guiding treatment targeted to a specific individual. The goal is to move away from “one-size fits-all” medicine to more “precision” (or personalized) medicine. This is because just as each person experiences pain differently, they will also experience treatments to their pain differently.
- If you are having chronic pain, you are not alone. Talk to your doctor about getting evaluated for pain, and treatment options that may be right for you.

