

Today's Agenda

Welcome and Introductions

- About Today's Presenter, [Insert Name]
- About [Insert Organization]

Chronic Joint Pain: An Overview

- Treatment Options
 - Non-surgical Options
 - Joint Replacement Surgery

Joint Replacement Surgery: Is Your Patient the Right Candidate?

- Criteria for Assessment
- Risk Assessment Tools
- Managing Your Patients' Expectations

Questions and Answers

Biomet is a manufacturer of orthopedic implants and does not practice medicine. This presentation was prepared in conjunction with a licensed physician and is presented as general information only.

An overview

CHRONIC JOINT PAIN

Chronic Joint Pain Impacts Every Aspect of Life

- Arthritis is the number one cause of disability in the United States.
- More than 21 million adults say that arthritis *limits their usual activities in some way*.
- 6.9 million working age U.S. adults report work limitations due to arthritis.

Chronic Joint Symptoms Present Challenges for Managing Co-Morbid Conditions

- Chronic joint pain has been associated as a barrier to effective management of other chronic medical conditions
 - Arthritis is present in more than 57% of individuals with heart disease and 52% of individuals with diabetes¹⁻²
- Persons living with obesity and arthritis are at significantly increased risk of disability
 - 70 year-old man with both obesity and arthritis can expect to live 50% of his remaining years disabled³
 - A woman of similar age and clinical conditions can expect to live 60% of her remaining years disabled³
- Arthritis is an often unrecognized barrier to effective management of heart disease – limiting an individual's opportunity to pursue physical activity that may lower blood pressure and cholesterol levels.³

1. MMWR Weekly, February 27, 2009. Available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5807a2.htm>.

2. MMWR Weekly, May 9, 2008. Available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5718a3.htm>.

3. Reynolds SL, McIlvane JM. The impact of obesity and arthritis on active life expectancy in older americans. *Obesity*, 17 (2) 363-369, February 2009.

Common Goals for the Treatment of Joint Pain

- Control pain and swelling
- Minimize functional limitation and disability
- Improve the quality of life
- Prevent progression

Treatment Considerations

- Individualized to the patient's expectations¹
- Level of function and activity
- Joints involved
- Severity of the patient's disease
- Occupational and vocational needs
- Nature of any coexisting medical problems
- Essential component in the development of a therapeutic plan is the correct attribution of signs and symptoms at the target site

1. Chisholm-Burns M, Kolesar J, et al. Pharmacotherapy Principles and Practice. 2nd ed., p. 579. 2010.

Inflammatory versus Non Inflammatory Disease

- Noninflammatory OA have:
 - Minimal symptoms, including pain and disability-related complaints
 - Physical findings in affected joints such as tenderness, bony prominence, and crepitus
- Inflammatory OA have:
 - Articular swelling
 - Night pain
 - Morning stiffness lasting for more than 30 minutes
 - Joint effusion on examination or radiography
 - Synovitis on arthroscopic examination
 - Warmth on palpation of the joint

Nonpharmacologic Therapies for OA

- Exercise programs¹
- Weight loss¹
- Patient education¹
- Wedged shoe insoles (knee patients)¹

Nonpharmacologic interventions, other than surgical approaches, are generally started before medications.²

However, for some patients this is not enough

1. Jordan KM, Arden NK, et al. EULAR Recommendations 2003: an evidence based approach to the management of knee osteoarthritis: Report of a Task Force of the Standing Committee for International Clinical Studies Including Therapeutic Trials (ESCISIT). *Ann Rheum Dis.* 2003;62(12):1145.
2. Kalunian KC. Nonpharmacologic therapy of osteoarthritis. In: UptoDate, Tugwell, P (Ed.) UptoDate, Waltham, MA, 2011.

Pharmacologic Approach to Joint Pain/Analgesia

- Acetaminophen
- NSAIDs
- COX-2 inhibitors
- Opioid analgesics
- Topical NSAIDs
- Injections
- Other Anti-inflammatories
- Follow up
 - It may take two to four weeks to evaluate the efficacy of a particular treatment
- Patient selection criteria

Surgery may be an option when other treatments have not worked

- **The decision to recommend surgery – whether arthroscopic, partial joint replacement or total joint replacement – will depend on your patient's current condition, including:**
 - General medical condition
 - Fitness for surgery
 - How much their pain affects daily functioning and quality of life.

If you determine your patient's health to be good enough to undergo the anesthesia and rehabilitation associated with the surgery, they should be recommended to an orthopedic surgeon who will further assess whether surgery is a viable option.

Goals of Total Joint Replacement

Eliminate or reduce
pain

Enhance movement
and mobility

Improve quality of life

- Return to most normal activities
- Participate in low-impact sports and activities

Collaborate with a local orthopedic surgeon to discuss whether your patient is a candidate for joint replacement surgery and when the appropriate time would be for the surgery.

Potential Complications of Total Joint Replacement

- Some of the potential complications associated with joint replacement surgery are similar to those that exist with any major surgery (e.g. infection, risk of bleeding)
- Others specific to joint replacement may include the following, any of which can require additional surgery:
 - Heterotopic ossification*
 - Vascular injury*
 - Nerve injury*
 - Venous thromboembolic events*
 - Malalignment
 - Implant breakage
 - Wear
 - Dislocation

Is your patient a good candidate for surgery?

CRITERIA AND ASSESSMENT

A risk assessment will help determine whether surgery is appropriate

- **Treatment for chronic joint pain can be identified by assessing the severity of your patient's pain in the following areas:**
 - Frequency of joint pain
 - Impact on quality of life and daily activities
 - Interference with sleeping
 - Pain while sitting
 - Difficulty walking
- **Factor the relative success of other treatments or procedures the patient may have pursued to address his/her joint pain.**
 - Non-surgical (e.g., diet/exercise, medication, rehabilitation, etc.)
 - Surgical (e.g. arthroscopy, joint replacement)

Engage patients to determine their expectations, utilizing a patient self-assessment

Ask the patient if they experience joint pain several times a week

- Sleep**
- Sit**
- Dress**
- Climb stairs**
- Work at job**
- Walk**



Ask your patient to rate their ability to do these activities as Unable to Perform, Very Difficult, Somewhat Difficult or Not Difficult

Address your patient's expectations according to the treatment approach

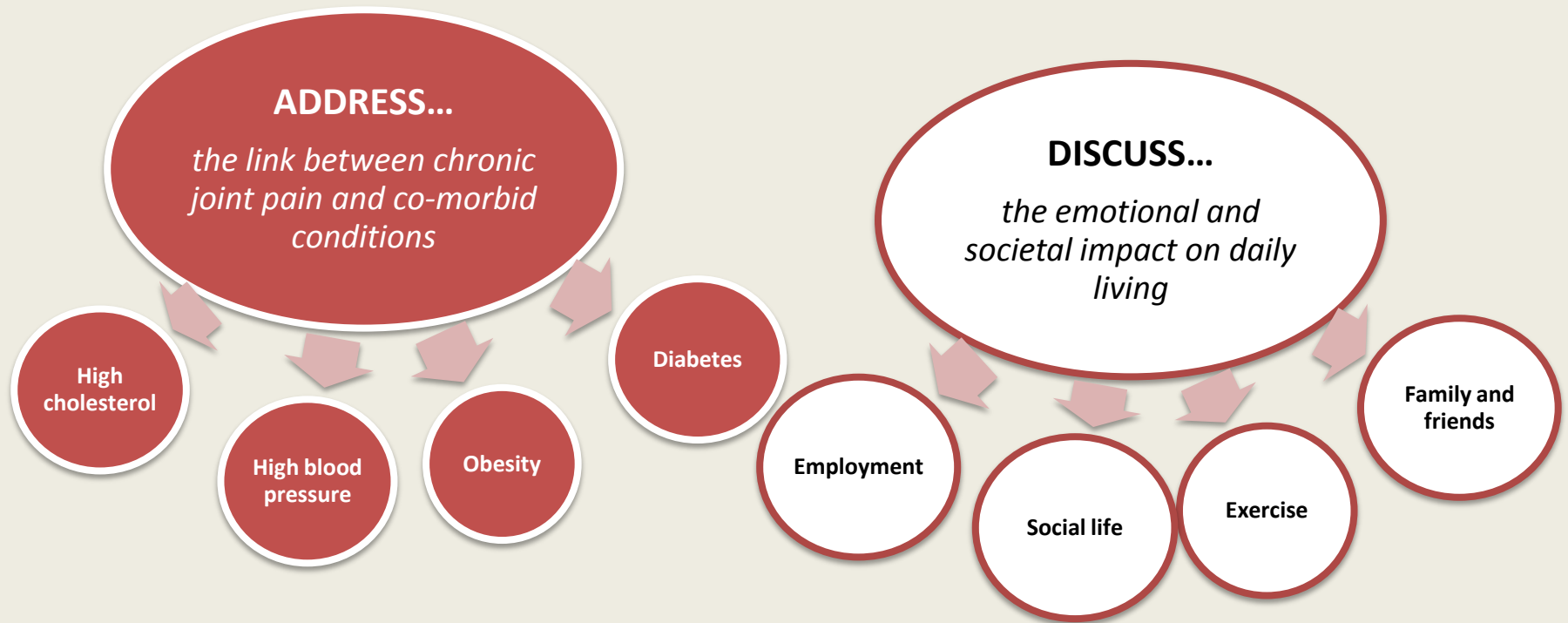
- **Non-surgical options**

- Highlight the expected result of the treatment
 - Include duration and longevity of response
- Review the potential side effects and lifestyle impact
- Schedule follow up appointments to monitor their treatment progress

- **Surgical options**

- Provide a broad overview of what to expect at an appointment with an orthopedic surgeon
- Explain general criteria to qualify for surgery
- Highlight the importance of seeing a specialist

Engage your patient and focus on how different treatment options will realistically affect their life.



What to expect post-surgery

- Hospital stay between two to three days
- Assisted walking within 24 hours of surgery
- Pain management
- Physical therapy
 - Prescribed by physician
 - Supervised physical therapy for two to four weeks
 - Home exercise program as directed by physician

Resuming Usual Activities

- **Routine activities (1-2 weeks)**
 - Walking unassisted
 - Driving
 - Gardening
 - Shopping
 - Housework
- **Low impact activities (1-2 months)**
 - Golfing
 - Dancing
 - Bowling
 - Swimming
 - Biking
 - Doubles Tennis

PERMANENT RESTRICTIONS

- Running
- Jumping
- Jogging
- High-impact or contact sports
- Heavy manual labor

Effective Preoperative Medical Assessment is a Key Factor for Success

Goals

- Assess the risk of potential perioperative morbidity and mortality
- Determine whether a patient's medical condition can be optimized before elective surgery

“Readiness” for Surgery

- Includes risk assessment for intraoperative and acute post-operative outcomes
- Includes evaluation of pre-existing conditions, related and unrelated to the planned surgical procedure

Preoperative Evaluation and Testing

Evaluation

Thorough history and physical examination

- Systems-based approach includes all body systems

Goal is to identify an undiagnosed, poorly managed or other conditions that can place the patient at higher perioperative risk for morbidity and mortality

Preoperative Testing

Blanket testing is not cost-effective in planning care of a general population of patients

Patients with specific comorbidities should be screened using tests relevant to their conditions

A directed bleeding history is more effective for assessing the risk of surgical bleeding than routine screening with platelet count, INR or bleeding time

Key Clinical Risk Assessments

Cardiac Risk

- Identify patients with new or unstable cardiopulmonary symptoms for additional preoperative testing
 - Begin preventative therapies, if needed
 - Order preoperative ECG for all patients with a history of coronary artery disease, vascular disease or cerebrovascular disease

Pulmonary Risk

- Pulmonary complications (e.g. pneumonia, respiratory failure) are likely more common than cardiac complications
- Physical examination, especially assessment of functional status, is likely more predictive of pulmonary risk than preoperative tests
- Chest radiographs should be ordered for patients with signs/symptoms of pulmonary disease

Diabetes

- Blood glucose levels in orthopedic surgical patients should be maintained in the 110-150 mg/dL range throughout the perioperative period

Key Clinical Risk Assessments

Weight¹

- Advise patients with BMI above 30 to consider weight loss
 - Refer to physical therapists to assist in development of exercise and activity programs to strengthen muscles while avoiding stress on the affected joints
 - Obtain the service of a nutritionist to help support the obese patient in a program of weight reduction

Depression¹

- Patients undergoing joint replacement must be mentally and physically healthy enough to tolerate surgery and sufficiently motivated to carry out the exercise program needed for full rehabilitation
- Identification and treatment of underlying depression helps to improve pain control, functional status, and overall quality of life

Skin Condition²

- Presence of chronic skin conditions, such as chronic ulcers, around the joint

¹ Primary care medicine: office evaluation and management of the adult patient. AH Goroll, AG Mulley. 2009. pp 1099-1100.

² Fundamentals of Surgical Practice. AN Kingsnorth, AA Majid. 2006. p. 456

Primary Care Plays a Pivotal Role in Ensuring Appropriate Treatment for Chronic Joint Pain

- The primary care provider is instrumental in ensuring the effective care of chronic joint pain
 - Informed discussion with patients regarding treatment options
 - Understanding of clinical and social dynamics that will impact treatment outcomes
 - Assessment of clinical “readiness” for surgery and implementation of treatments to optimize the clinical condition during the peri-operative period
 - Baseline setting and management of patient expectations regarding treatment approaches
 - Effective follow-up and ongoing clinical management
- By working with specialists to address chronic joint pain, primary care providers may advance their efforts to treat co-morbid conditions that can be exacerbated by inactivity
- Collective clinical efforts to address chronic joint pain among an increasing aging population will best serve the interests of the clinical and patient communities



Questions and Answers