Flex Therapist CEUs

Total Hip Replacement

1. A 65-year-old patient asks why so many physical therapists seem familiar with total hip arthroplasty (THA). Which explanation best reflects current epidemiologic data and its implications for rehabilitation practice?

A. THA is performed in roughly 450,000 cases annually in the United States, with more than 2.5 million people living with a hip replacement, so therapists routinely encounter these patients across all care settings and must stay current with evolving techniques and rehab strategies.
B. THA volume has decreased in recent decades due to advances in conservative care, so most therapists see these patients only in specialized orthopedic centers and need limited ongoing training.
C. THA remains a rare salvage procedure used primarily in end-stage inflammatory arthropathies, so its impact on general rehabilitation practice is modest despite high media attention.
D. THA is largely confined to inpatient rehabilitation units because most recipients are non-ambulatory nursing home residents, making community-based therapists less likely to treat them.

---

2. When counseling a patient about indications for THA, which statement best captures the primary driver of procedure volume and its functional implications?

A. Developmental hip dysplasia is responsible for most THAs, and patients usually maintain near-normal function until very late in life.
B. Rheumatoid arthritis is the leading indication for THA, and most patients can avoid significant functional loss with conservative treatment alone.
C. End-stage osteoarthritis accounts for the majority of THA procedures and typically presents with progressive pain, stiffness, and difficulty with walking, transfers, and stairs that no longer respond to conservative care.
D. Acute femoral neck fractures account for the majority of THAs, and the main goal is fracture union rather than restoration of coordinated movement patterns.

---

3. A resident asks about the historical turning point that made modern THA reliable. Which description most accurately reflects Sir John Charnley's contribution and its relevance today?

A. Charnley established that simple interposition of rubber between arthritic joint surfaces could reliably reduce pain, leading to the abandonment of prosthetic components in most modern hips.
B. Charnley pioneered the first cementless ceramic-on-ceramic resurfacing system, which eliminated concerns about polyethylene wear and remains the standard in all younger patients today.

C. Charnley introduced low-friction arthroplasty using a metal femoral stem and a polyethylene socket fixed with bone cement, dramatically improving pain relief and long-term reliability and influencing current implant design principles.
D. Charnley developed computer-assisted navigation systems that ensured perfect cup inclination and version, making soft tissue considerations less relevant for later surgeons.

---

4. A 52-year-old marathon runner with advanced hip osteoarthritis is considering THA. Which explanation best links the historical evolution of implants to his candidacy and rehab expectations?

A. Earlier-generation implants were more durable than current designs, so younger, active patients today are steered away from THA and rarely require formal rehabilitation after surgery.
B. Advances in implant materials, bearing surfaces, and fixation methods have improved durability and allowed surgeons to offer THA to younger, more active patients, raising expectations for higher post-operative function while still requiring structured, criteria-based rehabilitation.
C. Modern implant designs favor extremely constrained components that sacrifice motion to prevent wear, so younger patients must accept permanent severe activity limitations after THA.
D. Because current implants are designed exclusively for low-demand elderly patients, younger individuals like him should expect early loosening if they participate in rehabilitation beyond basic ambulation.

---

5. A surgeon notes that a patient's THA was performed with robotic assistance. Which rehabilitation interpretation best aligns with the described role of this technology?

A. Because robotic systems ensure perfect biomechanics, focusing on gait retraining and movement quality in therapy is unnecessary as long as strengthening is performed.
B. Robotic-assisted THA virtually eliminates instability risk, so therapists can disregard surgical precautions and immediately initiate pivoting, deep flexion, and high-impact activities.
C. Robotic-assisted THA can improve consistency of implant alignment, leg length, and offset, which may support more symmetrical gait over time, but it does not remove the need to follow standard precautions or tissue-healing–based progression in rehabilitation.
D. Robotic assistance mandates a slower rehabilitation course because implants are more fragile and cannot tolerate weight bearing until advanced bone ingrowth has occurred.

---

6. Two weeks after a minimally invasive, muscle-sparing THA, a patient shows quick improvement in short-distance ambulation and insists on rapid progression to jogging. Which rehab decision best reflects the course content?

A. Immediately discontinue all strengthening and balance work because minimally invasive techniques inherently prevent post-operative weakness and gait deviations.
B. Agree to initiate a jogging program because a shorter incision confirms that internal tissues experienced minimal stress and are ready for impact loading.
C. Explain that smaller incisions and muscle-sparing techniques can support earlier basic mobility, but progression must still be based on objective strength, movement quality, and symptom response, not incision size or early performance.

D. Advance only passive range-of-motion work and avoid any weight bearing, since minimally invasive procedures increase the risk of implant loosening with functional activity.

---

7. During examination after an anterior, muscle-sparing THA, a patient demonstrates hip abductor weakness despite preserved muscle attachments. Which interpretation is most consistent with the discussion of tissue effects of modern approaches?

A. Anterior approaches eliminate the need for abductor strengthening, so any focus on hip abductors in therapy is unnecessary and potentially harmful.
B. Muscle-sparing approaches completely prevent neuromuscular inhibition, so observed weakness must be due to implant failure rather than post-operative muscle changes.
C. Because no muscles were detached, all gait deviations are purely psychological and should resolve spontaneously without specific rehabilitation.
D. Even with muscle-sparing approaches, deep tissues experience retraction and positioning stresses that can cause muscle inhibition, soreness, and altered neuromuscular control, requiring targeted activation and strengthening.

---

8. A 48-year-old with good bone quality undergoes hip resurfacing. Early in rehab, which principle should most strongly shape your loading and activity progression?

A. Base progression solely on incision healing and pain levels, as femoral neck fracture risk is unrelated to early loading patterns following resurfacing.
B. Encourage immediate high-impact activities because the larger femoral head in resurfacing virtually eliminates fracture and dislocation risk.
C. Advance loading faster than after THA, since preserving more proximal femoral bone automatically enhances early load tolerance regardless of surgical technique.
D. Prioritize protection of the femoral neck through cautious progression of weight-bearing loads and impact activities, advancing rotational and higher-level tasks more conservatively than after standard THA.

---

9. A home health PT evaluates a patient 3 days after posterior-approach THA. Which primary rehabilitation focus best reflects best-practice guidance for the home care setting?

A. Begin high-intensity resistance training and plyometrics to take advantage of the short hospital stay and modern surgical messaging about rapid recovery.
B. Conduct a comprehensive home safety assessment and emphasize safe ambulation, transfers, and ADLs within post-operative precautions to reduce fall risk and build foundational independence.
C. Focus primarily on maximizing hip range of motion into flexion, adduction, and internal rotation to quickly normalize joint mobility, even if precautions are temporarily violated.
D. Delay gait and transfer training until outpatient therapy, concentrating instead on passive modalities to minimize pain regardless of functional status.

---

10. Four weeks after THA, a patient enters outpatient therapy independent in household ambulation but with hip abductor weakness, gait asymmetry, and low endurance. According to the course, what should be the central rehabilitation emphasis at this stage?

A. Systematically address residual strength, balance, and gait deficits through progressive loading, refined gait retraining, and endurance conditioning tailored to individual goals.
B. Assume recovery is complete because the patient is independent at home, and focus visits on reviewing precautions without further progressive exercise.
C. Prioritize static stretching into end-range positions while minimizing strengthening, since strength generally returns automatically once pain resolves.
D. Limit activity to short indoor walking bouts and avoid balance or single-limb tasks until at least 6 months post-operatively, regardless of objective findings.

---

11. A patient with multiple comorbidities and limited home support is transferred from acute care to a skilled nursing facility (SNF) after THA. Which rehabilitation strategy best reflects SNF best-practice guidelines?

A. Assign unsupervised independent exercise sessions because staff availability, rather than clinical progression, should determine therapy intensity in the SNF setting.
B. Restrict the patient to bed-based exercises only, as SNF-level patients are generally too medically fragile for functional mobility training.
C. Focus primarily on advanced community reintegration tasks, assuming that foundational mobility was fully addressed during the brief acute hospital stay.
D. Emphasize repeated practice of functional tasks such as transfers, ambulation, and stair negotiation with progressive strengthening and endurance, while planning for safe discharge to home or outpatient care.

---

12. A patient believes that a robotic-assisted, minimally invasive THA allows immediate return to high-impact sports without formal rehab. Which response best integrates the course's discussion of modern surgery and rehabilitation implications?

A. Recommend avoiding all strengthening and balance training because robotic guidance has already optimized biomechanics, making exercise unnecessary.
B. Agree that modern implants are designed to tolerate any level of activity as soon as pain subsides, so supervised rehabilitation is optional for motivated patients.
C. Explain that while advanced techniques can enhance alignment and support earlier basic mobility, they do not change biological healing or neuromuscular recovery, so return to higher-level or impact activity must still follow criteria-based, progressive rehabilitation.
D. Advise complete inactivity for six months to avoid any risk to the advanced implant, regardless of the patient's functional status or surgical approach.

---

13. At two weeks post-THA, which set of goals most appropriately reflects the early return-to-function phase described in the course?

A. Protect surgical structures while restoring safe foundational mobility by focusing on pain and swelling management, independence with bed mobility and transfers, and short-distance ambulation with an appropriate assistive device and sound mechanics.
B. Begin sport-specific plyometrics and unrestricted community ambulation to prevent deconditioning, using pain alone as the guide for activity tolerance.
C. Prioritize maximal resistance open-chain hip strengthening and deep squats to quickly restore strength, even if movement quality deteriorates.
D. Delay ambulation and transfers until full passive hip range of motion is restored, to avoid reinforcing compensatory patterns during functional tasks.

---

14. A patient at 6 weeks post-THA is entering the intermediate phase of recovery. Which activity expectation best matches this phase according to the course?

A. Eliminate all strengthening exercises and focus exclusively on flexibility because tissue healing is complete and strength will progress naturally with daily walking.
B. Maintain walking distances at early post-operative levels to avoid stressing the implant, but add high-impact activities such as jogging to accelerate cardiovascular gains.
C. Gradually increase walking distance and duration, reduce reliance on assistive devices when strength and balance permit, and introduce more demanding strengthening and balance tasks while closely monitoring movement quality and symptom response.
D. Immediately resume preoperative occupational and recreational loads as long as the incision is healed, regardless of persistent gait asymmetries or weakness.

---

15. A patient underwent a posterior-approach THA. Which movement pattern should the therapist be most cautious about in the early post-operative phase based on approach-specific precautions?

A. Supine hip extension with neutral rotation, which primarily challenges anterior capsular structures unaffected by a posterior approach.
B. Neutral hip flexion with slight abduction and external rotation during upright standing, which selectively loads the preserved posterior soft tissues.
C. Combined hip flexion, adduction, and internal rotation, such as low chair sitting with the legs crossed or twisting on the surgical limb, which stresses the repaired posterior capsule and external rotators.
D. Gentle active-assisted abduction within a pain-free range, since this primarily recruits muscles not directly involved in posterior capsular repair.

---

16. During a home visit 10 days after THA, a patient reports new onset of unilateral calf pain with localized warmth and swelling, and also describes increasing shortness of breath. According to the red flag guidance, what is the most appropriate action?

A. Recognize these as potential signs of deep vein thrombosis and pulmonary embolism and arrange immediate medical evaluation rather than attributing them to normal post-operative soreness.
B. Reassure the patient that these symptoms are expected after increased walking and instruct them to continue the current exercise program without change.

C. Advise the patient to self-massage the calf to improve circulation and monitor symptoms for resolution over the next several weeks.
D. Recommend temporarily stopping all ambulation to eliminate mechanical stress on the implant, with no need to contact the surgical team unless hip pain also increases.

---

17. A 70-year-old at 8 weeks post-THA shows persistent hip abductor and extensor weakness with trunk lean during gait. Which intervention strategy is most strongly supported by the course's evidence review?

A. Focus exclusively on stationary cycling at very low resistance, as strengthening the surgical limb with resistance risks accelerating implant wear.
B. Rely primarily on passive stretching and continuous passive motion to restore movement, expecting that strength and gait mechanics will normalize spontaneously over time.
C. Implement a structured, moderate-intensity progressive resistance training program targeting the hip abductors, extensors, and trunk stabilizers, integrated with task-specific gait retraining to improve pelvic control and symmetry.
D. Limit intervention to cueing for faster walking speed, assuming that increased velocity alone will eliminate compensatory trunk lean and weakness.

---

18. A clinician considers prescribing continuous passive motion (CPM) after THA to improve outcomes. Which statement best reflects the course's evidence-based position on CPM in this population?

A. CPM should completely replace early ambulation after THA, as repetitive walking is contraindicated until full passive range of motion has been achieved.
B. CPM is considered essential after every THA to prevent dislocation and is more beneficial than gait training or strengthening in restoring long-term function.
C. Because CPM evidence is strong in total knee arthroplasty, its routine use in THA can be assumed to provide equivalent functional benefits without further justification.
D. Current evidence does not support routine CPM use after THA; active, task-oriented mobility and progressive exercise should remain the core of rehabilitation, and CPM, if used, should serve a limited, clearly justified role without replacing active movement.

---

19. A patient at 4 weeks post-THA demonstrates clear hip abductor inhibition and difficulty stabilizing single-limb stance despite good pain control. How does the course recommend using neuromuscular electrical stimulation (NMES) in this situation?

A. Rely exclusively on NMES for several months and postpone active strengthening until muscle activation returns spontaneously to avoid overworking the surgical limb.
B. Use NMES as an adjunct to facilitate hip abductor activation when voluntary recruitment is limited, integrating it with early strengthening and balance training rather than using it as a stand-alone substitute for exercise.
C. Avoid NMES because electrical stimulation is contraindicated in the presence of muscle inhibition and could impair long-term neuromuscular control.
D. Reserve NMES for late-phase hypertrophy training after all gait and balance deficits have resolved, since early use has no demonstrated benefit.

---

20. A rural patient awaiting THA has limited access to in-person services both before and after surgery. Which plan best aligns with the course's evidence-based discussion of prehabilitation and telerehabilitation?

A. Defer any preoperative exercise or education, as prehabilitation has no evidence of benefit and may confuse the patient about post-operative expectations.
B. Provide a preoperative program emphasizing targeted strengthening for deconditioned muscles and education on post-operative mobility and pacing, then use telerehabilitation for post-op exercise progression and coaching, recognizing that well-designed remote care can achieve outcomes comparable to face-to-face therapy in many contexts.
C. Plan to rely solely on post-operative CPM delivered at home, since remote supervision of active exercises is not supported and is inferior to passive motion.
D. Advise the patient to self-direct all rehabilitation based on internet videos, because structured telerehabilitation has consistently worse outcomes than having no formal rehab at all.
