

Foundational Paper on "The Economic Value of Physical Therapy in the United States — A Report From the American Physical Therapy Association"

September 2023

APTA's report "The Economic Value of Physical Therapy in the United States" describes the economic value delivered by physical therapy across a range of medical conditions.

Physical therapy is vital to the U.S. health care system.

Over 300 million physical therapist visits occur every year, and demand for physical therapy is increasing (IBISWorld, 2022). However, Americans face barriers such as low coverage, high copays, and limited access to the physical therapist services they need.

Greater patient access to physical therapists can generate benefits for patients and the health care system alike. For example, physical therapists can alleviate the impact of shortages in primary care physicians, which are expected to reach between 21,000 and 55,000 by 2033 (Clark, 2022).

Physical therapy can be cost-effective in managing a range of conditions, with proven results that include improvements to quality of life through patient education, hands-on care, and prescribed exercise. For example, physical therapy is highly effective in treating musculoskeletal conditions, which account for 8%-18% of physician office caseloads (Clark, 2022), impacting over 127 million Americans and contributing to \$213 billion in medical expenditures, lost wages, and decreased productivity annually (Childs, 2022).

Physical therapy provides significant value to the health care system by improving health care outcomes and lowering costs when used to manage a number of common conditions.

This APTA report demonstrates the cost-effectiveness of physical therapist services.

"The Economic Value of Physical Therapy in the United States — A report From the American Physical Therapy Association," investigates the application of physical therapy across several health conditions to assess the costs and benefits of physical therapist services compared with alternative courses of care or no treatment.

APTA represents more than 100,000 physical therapists, physical therapist assistants, and students of physical therapy in the United States.

The report provides patients, policy makers, health providers, funding entities, and others with evidence of the benefit of physical therapy compared with alternatives. The aim is to help optimize health care policies and payment structures and inform patient care as well as individual decisions about treatment options.

Benefits considered in the cost-benefit analysis of the health conditions covered in the report include quality-of-life improvements, intervention-based costs, patient time and opportunity costs, and avoided costs (such as avoiding more expensive treatments) associated with the physical therapist services.

The economic benefits of physical therapy underscore the value of physical therapists in the U.S. health care system and their growing importance in patient care. "The Economic Value of Physical Therapy in the United States" is just an initial step in demonstrating the economic benefit of physical therapy in the U.S. health care system. APTA will explore additional interventions in future reports.



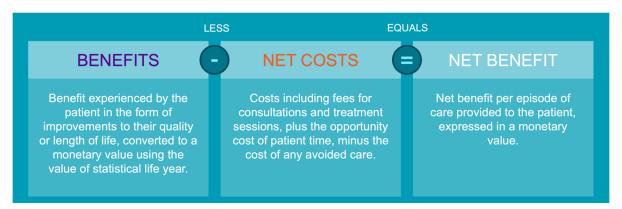
A robust methodology was used to calculate the economic benefits of physical therapy.

The report examined the available scientific research on the care delivered for eight conditions. An economic analysis was performed for each condition, comparing physical therapist services to an alternative treatment based on the costs associated with providing care and the benefits produced for the U.S. health care system.

To calculate the benefits of physical therapy for each condition, the estimated improvement to a patient's quality of life was converted to a dollar figure. To calculate the total cost of the physical therapist services, the following costs were added together: the cost of the services delivered and the potential cost of the patient's time spent attending physical therapy appointments (including anticipated travel time to and from appointments). Any avoided costs that would have been attributed to the alternative treatment were subtracted.

The report did not consider other types of benefits and costs, such as marginal increases to productivity for patients, to make sure the results demonstrated a strong case for cost-effectiveness.

When the quality-of-life improvement delivered by physical therapist services outweighed the cost of the non-physical therapy-based course of care, physical therapy was found to provide a net economic benefit.



To determine which conditions would be included in the "The Economic Value of Physical Therapy in the United States" report, a comprehensive range of interventions was considered. These interventions were then narrowed down based on a set of selection criteria including the strength of the scientific research available to allow for a solid economic evaluation of the net benefit of physical therapy. The resulting eight conditions reflect the core of physical therapist services, with a variety of patient demographics, stages of life, and the breadth of physical therapist practice.

Physical Therapy Provides an Economic Benefit Across a Range of Conditions

The net benefit of physical therapy was calculated for the following eight conditions.



Here's a closer look at each condition:

Osteoarthritis of the knee



Osteoarthritis is a degenerative and progressive joint disease affecting more than 32 million Americans (Katz, 2021). Knee osteoarthritis is the most common type of arthritis, and its prevalence has doubled in the last 70 years (Wallace, 2017).

The economic analysis conducted for this condition was done using a scientific study that examined the costeffectiveness of physical therapy compared with intraarticular glucocorticoid injections for knee osteoarthritis.

The report demonstrates that choosing physical therapy over steroid injections to treat osteoarthritis of the knee saves \$13,981, including the dollars paid for the services as well as hidden costs of the patient's time, pain, and missed work and life events.

Carpal tunnel syndrome



Carpal tunnel syndrome affects 50 out of every 1,000 individuals in the United States. It occurs when compression of the median nerve at the wrist increases carpal tunnel pressure, resulting in numbness or burning sensations in the hand and reduced grip strength and movement (Joshi, 2022).

Common risk factors for CTS include, but are not limited to, gender, inflammatory conditions, pregnancy, diabetes, and hypertension. CTS is commonly identified as an occupational hazard, as people at highest risk have occupations that require forceful and often repetitive hand movements, such as office administrative staff and production workers.

The economic analysis conducted for this condition was done using a scientific study that examined the costeffectiveness of physical therapy compared with surgery for patients with carpal tunnel syndrome.

The report demonstrates that **choosing physical** therapy over surgery to treat carpal tunnel syndrome saves \$39,533.

Low back pain



Back pain is a leading musculoskeletal disorder with a high occurrence, costly treatment, and a significant effect on a person's quality of life. A National Health Interview Survey found that in 2019, 39% of American adults suffered from back pain, with older adults, women, and those with lower incomes more likely to experience it (Lucas, 2021).

Back pain is the leading cause of work-loss days and work limitations and can result in patients seeking emergency care (Health Policy Institute, 2019). Low back pain-related costs have risen faster than overall health care costs (Dieleman, 2016).

The economic analysis conducted for this condition was done using a scientific study that examined the costeffectiveness of physical therapy compared with the usual primary care management for acute low back pain.

The report demonstrates that choosing physical therapy early, over typical management of acute low back pain, saves \$4,160.

Stress urinary incontinence



Stress urinary incontinence is the involuntary leakage of urine during actions that include exercise, coughing, laughing, or sneezing (Lugo, 2022). It is the most common form of urinary incontinence in women.

The economic analysis conducted for this condition was done using a scientific study that examined the costeffectiveness of physical therapy compared with an alternative and common injection known as urethral bulking for urinary incontinence.

The report demonstrates that choosing physical therapy over injections for urethral bulking to treat urinary incontinence saves \$10,129.

Lateral epicondylitis



Lateral epicondylitis, also known as tennis elbow, is an overuse injury caused by eccentric overload of the "extensor carpi radialis brevis tendon," a muscle in the forearm. It is commonly caused by activities that include loaded or repeated gripping, such as tennis, squash, or badminton, and is most common in individuals older than 40 years of age (Buchanan, 2022).

Despite its name, tennis players make up only 10% of the tennis elbow patient population (Degen, 2017); as many as 15% of workers in highly repetitive jobs report having tennis elbow (Johnson, 2007).

The economic analysis conducted for this condition was done using a scientific study that examined the costeffectiveness of physical therapy and/or corticosteroid injection for tennis elbow compared with a placebo injection.

The report demonstrates that choosing physical therapy over alternatives to treat tennis elbow saves \$10.739.

Vascular claudication



Claudication is a condition that causes pain in the thigh, calf, or buttocks when walking due to restricted blood flow. Claudication is a symptom of a more serious underlying condition and is classified as one of two main types: vascular claudication and neurogenic claudication (Nadeau, 2013).

Vascular claudication is typically the result of peripheral arterial disease, or PAD. PAD is caused primarily by plaque build-up in the arteries, known as atherosclerosis, that restricts proper blood flow to the lower limbs.

The economic analysis conducted for this condition was done using a scientific study that examined the costeffectiveness of physical therapy-monitored exercise (walking and treadmill training) combined with "optimal medical care" (a risk factor management method as suggested by guidelines from the American College of Cardiology and American Heart Association) compared with "optimal medical care" alone.

The report demonstrates that choosing physical therapy over alternatives to treat claudication saves \$24,125.

Falls prevention



Falls are a major injury risk for older adults and often result from reduced muscle strength, decline in balance, decreased gait assurance, and decreased cognitive function. Falls are closely associated with an increased incidence of fractures, such as hip and wrist fractures. Data from 2018 shows that falls led to nearly 3 million emergency department visits and resulted in approximately 32,000 deaths in the United States (Kakara, 2018).

The economic analysis conducted for this condition was done using a scientific study that focused on the costeffectiveness of physical therapy-based falls-prevention exercise versus no intervention, to compare the isolated impact of exercise treatment on preventing falls and reducing future costs associated with common fractures.

The report demonstrates that **choosing physical** therapy-based falls-prevention exercise saves \$2.144 in future costs associated with common fractures due to falls.

Cancer rehabilitation



With a rapidly growing and aging population, nearly 40% of Americans will have cancer at some point in their lives (National Cancer Institute, 2020). Advancements in cancer treatment and diagnosis are resulting in an increasing number of people living, recovering from, and surviving cancer. Cancer rehabilitation can occur at any point from cancer diagnosis to treatment and survivorship, and includes pre-habilitation, post-treatment rehabilitation, and palliative rehabilitation (Mayer, 2022).

The economic analysis conducted for this condition was done using a scientific study that examined the costeffectiveness of a physical therapy-based telerehabilitation program compared with home-based monitoring for cancer rehabilitation.

The report demonstrates that **choosing physical** therapy over home-based monitoring for cancer rehabilitation saves \$3,514.

Getting the Word Out: APTA's Awareness Campaign for the Report

Along with the release of "The Economic Value of Physical Therapy in the United States," APTA's awareness campaign, running over several months, will reach multiple audiences on different platforms to highlight aspects of the report demonstrating the cost-effectiveness of physical therapy for the selected health conditions. The campaign includes infographics, a foundational paper, social media posts, and more.

You can learn more about our campaign and "The Economic Value of Physical Therapy in the United States" on our ValueofPT.com website.

You can also get in touch with us via email or phone:

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