



## You don't need to walk it off: occupations that help to diagnose and treat sports injuries

*By Alan Zilberman*

You may think of athletic trainers as those staff that you see on the sidelines of football games, running on the field if a player gets hurt. But athletic trainers work in schools, medical offices, hospitals, and they even provide care to veterans. In fact, athletic trainers are part of a larger group of occupations with practitioners who help to diagnose and treat sports-related injuries as part of their duties. These occupations are projected to have employment growth that is faster than the average for all occupations, and several are projected to have growth at least three times faster than the average.

Demand for these occupations’ services will stem, in part, from an aging population that remains active, even athletic, and from heightened attention placed on injuries like concussions. In this **Beyond the Numbers** article, we’ll look at some occupations that help to diagnose and treat sports injuries, and explore why employment is projected to grow rapidly.

The term “sports injuries” refers to any injury that happens during exercise or playing a sport. Falls or contact with other players can cause injury. Injuries can also occur when someone does not stretch properly or does not wear the proper equipment. The most common sports-related injuries are sprains, strains, swollen muscles, fractures, dislocations, knee injuries, and shoulder injuries such as those to rotator cuffs.<sup>1</sup> As part of treating sports injuries, people in these occupations develop and carry out rehabilitation programs, which typically include a mix of hands-on care, such as therapy, and exercise. In some cases, they are first responders to injuries and provide first-aid.

Sports injuries can affect anyone who is active—or attempts to be active—at any age. This includes members of the baby-boom generation, Americans born between 1946 and 1964, who are now entering retirement in large numbers. According to Walter Jenkins, president of the American Physical Therapy Association’s (APTA) Sports Physical Therapy Section, “The baby boomers have this mindset of trying to remain active for their lifetime. That is a positive thing because it’s good for their general health, but at the same time you can have increased incidence of injury.”<sup>2</sup> As the baby boomers remain active, they will need services provided by those who work in the occupations below.

## Projected employment growth by occupation

The Employment Projections program at the Bureau of Labor Statistics (BLS) releases long-term employment projections for more than 800 detailed occupations, including those involved in sports medicine. Some of these occupations include first responders to a sports injury and providers of ongoing treatment. Exercise is often used as a recovery method, so exercise physiologists and fitness trainers may also be classified in this field.

The average employment growth for all occupations is projected to be 7.4 percent between 2016 and 2026. The selected occupations below that help to diagnose and treat sports injuries are projected to have faster-than-average growth during the 2016–26 decade. Several are projected to grow much faster than the average. (See table 1.)

**Table 1: Projected employment change and median annual wage for selected sports injury occupations, 2016–26, and typical education needed for entry (numbers in thousands)**

| Occupation                    | Employment |           | Employment change, 2016–26 |         | Typical education needed for entry | Median annual wage, May 2017 |
|-------------------------------|------------|-----------|----------------------------|---------|------------------------------------|------------------------------|
|                               | 2016       | 2026      | Number                     | Percent |                                    |                              |
| Total, all occupations        | 156,063.8  | 167,582.3 | 11,518.6                   | 7.4     | --                                 | \$37,690                     |
| Athletic trainers             | 27.8       | 34.1      | 6.3                        | 22.8    | Bachelor's degree                  | \$46,630                     |
| Chiropractors                 | 47.4       | 53.3      | 5.9                        | 12.5    | Doctoral or professional degree    | \$68,640                     |
| Physical therapists           | 239.8      | 306.9     | 67.1                       | 28.0    | Doctoral or professional degree    | \$86,850                     |
| Physical therapist assistants | 88.3       | 115.8     | 27.4                       | 31.0    | Associate's degree                 | \$57,430                     |

See footnotes at end of table.

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|---|------------|-------|----------------------------|---------|------------------------------------|------------------------------|
|   | 2016       | 2026  | Number                     | Percent |                                    |                              |
| Physical therapist aides                  | 52.0       | 67.2  | 15.3                       | 29.4    | High school diploma or equivalent  | \$25,730                     |
| Massage therapists                        | 160.3      | 202.4 | 42.1                       | 26.3    | Postsecondary nondegree award      | \$39,990                     |
| Exercise physiologists                    | 15.1       | 17.1  | 2.0                        | 13.1    | Bachelor's degree                  | \$49,090                     |
| Fitness trainers and aerobics instructors | 299.2      | 329.2 | 30.1                       | 10.1    | High school diploma or equivalent  | \$39,210                     |

Source: U.S. Bureau of Labor Statistics.

**Athletic trainers** specialize in preventing, diagnosing, and treating muscle and bone injuries and illnesses. They apply protective or injury-preventive devices, such as tape, bandages, and braces. They also develop and carry out rehabilitation programs for injured athletes. Athletic trainers are usually one of the first healthcare providers on the scene when injuries occur on the field. They also work in healthcare facilities, including offices of physical therapists and in hospitals. Employment of athletic trainers is projected to grow 22.8 percent.

**Chiropractors** care for patients with health problems of the neuromusculoskeletal system, which includes nerves, bones, muscles, ligaments, and tendons. They provide neuromusculoskeletal therapy, which often involves adjusting a patient’s spinal column and other joints. Some chiropractors specialize in sports medicine, focusing on those who suffer from back pain as a result of athletics. Employment of chiropractors is projected to grow 12.5 percent.

**Physical therapists** provide care to people of all ages who have functional problems resulting from back and neck injuries; sprains, strains, and fractures; arthritis; amputations; neurological disorders, such as stroke or cerebral palsy; injuries related to work and sports; and other conditions. When treating sports-related injuries, they use techniques such as exercises and special movements of joints, muscles, and other soft tissue to improve movement and decrease pain. Employment of physical therapists is projected to grow 28.0 percent.

**Physical therapist assistants and aides** work under the direction and supervision of physical therapists. Assistants treat patients through exercise, massage, gait and balance training, and other therapeutic interventions. Aides usually are responsible for keeping the treatment area clean and organized, and preparing for each patient’s therapy. Employment of physical therapist assistants is projected to grow 31.0 percent, and aides by 29.4 percent.

**Massage therapists** use touch to treat clients’ injuries and to promote general wellness. They use their hands, fingers, forearms, elbows, and sometimes feet to knead muscles and soft tissues of the body. Sports massage therapists use a special technique that reduces muscle tension and enhances athletic performance. Employment of massage therapists is projected to grow 26.3 percent.

**Exercise physiologists** develop fitness and exercise programs that help patients recover from chronic diseases and improve cardiovascular function, body composition, and flexibility. They analyze a patient’s medical history to assess his or her risk during exercise and to determine the best possible exercise and fitness regimen. Employment of exercise physiologists is projected to grow 13.1 percent.

**Fitness trainers and instructors** lead, instruct, and motivate individuals or groups in exercise activities, including cardiovascular exercises (exercises for the heart and blood circulation), strength training, and stretching. Exercise can be recommended as a way to recover from sports injuries, and these workers can assist in this endeavor. Fitness trainers and instructors lead classes that use specific exercise equipment, such as stationary bicycles, or teach popular conditioning methods, such as Pilates or yoga. Employment of fitness trainers and instructors is projected to grow 10.1 percent.

## Factors driving growth in these occupations

These employment projections reflect an interest among people in health, fitness, and safety, along with an emphasis on maintaining physical activity to improve health. As the American Heart Association observes:

Too much sitting and other sedentary activities can increase your risk of cardiovascular disease. One study showed that adults who watch more than 4 hours of television a day had a 46-percent increased risk of death from any cause and an 80-percent increased risk of death from cardiovascular disease. Becoming more active can help lower your blood pressure and also boost your levels of good cholesterol.<sup>3</sup>

Sports-related injuries are more likely to occur among an active population. Baby boomers are especially susceptible because, according to Jenkins, “Baby boomers still [perform activity] that requires fast movement, such as jumping and landing, or twisting. This means that physical therapists like myself are needed to help to restore proper movement to injured joints, allowing them to remain healthy.”<sup>4</sup> Scott Sailor, president of the National Association of Athletic Trainers (NATA), adds that, “We see this generation being more active: they are participating in tennis, running, triathlons... As long as people recognize the benefits of physical activity, we’ll see them stay active and they will need healthcare providers [like athletic trainers] to assist them with prevention of injury and management of injuries.”<sup>5</sup>

The baby-boom generation is not the only demographic that will need attention and care for sports-related injuries. Indeed, children are particularly vulnerable to these injuries, as so many students participate in athletics as part of their extracurricular activities. This creates a demand for athletic trainers. The athletic trainer will be the first responder, providing aid on the field. Sailor refers to them as a “case manager [of an athlete’s recuperation]... They will enlist a healthcare team after an injury occurs.”<sup>6</sup> This team will include other health professionals, such as physical therapists or even massage therapists.

Sports-related injuries, such as concussions, require specialized care. In particular, athletic trainers and others are trained to recognize and prevent head injuries from occurring.<sup>7</sup> Further, a more educated public has begun to take note and take action. According to the New York Times, “Concussion-related brain damage has become a particularly worrisome public health issue in many sports, especially football, affecting the ranks of professional athletes on down to the young children.”<sup>8</sup>

State and local governments have taken significant steps to reduce the occurrence of head injuries, regulating how often potentially dangerous practice can occur.<sup>9</sup> Despite such efforts, not all injuries are preventable, so sports-injury workers will be needed on a patient’s typical path toward recovery. Take, for example, a high school soccer player who breaks his or her leg on a rough tackle. An athletic trainer responds to the player on the field. After being treated by physicians for the broken leg, the soccer player may need help from a physical therapist, physical

therapist assistant, and physical therapist aide—all of whom will use hands-on exercises to help prevent further pain or injury. After physical therapy, the teenager may see a massage therapist, and also a Pilates/yoga instructor for low-impact, soothing workouts in a nonmedical setting. This is just one example of the variety of ways that professionals can help to treat and heal sports injuries.

## How to become one

You do not need a medical degree or even a bachelor's degree to help people get better after injuring themselves during sports or play. Physical therapist assistants, for example, typically need an associate's degree to enter the occupation, and massage therapists typically need a postsecondary nondegree award. Occupations that require education beyond a bachelor's degree (without a medical degree) include physical therapists and chiropractors. (See table 1.) In addition, most states require a license or certification to work in these occupations. Licensing or certification requirements typically include completing a number of education hours or an accredited program, and passing an exam. See the "How to Become One" sections of the occupational profiles in the [Occupational Outlook Handbook](#) for more information.

## Conclusion

All these sports injury occupations are projected to have faster-than-average growth. Some of these workers will be on the field or in the gym. Others will be working in hospitals or in other clinical settings. All of them will be working to ensure that their patients or clients can get back on their feet—and back into their exercise or sport—in a safe, timely manner. No matter how you choose to stay in shape or what sport is right for you, the professionals working in this field can help you in case of stumbles, sprains, and falls.

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This **Beyond the Numbers** article was prepared by Alan Zilberman, economist in the Office of Employment and Unemployment Statistics, U.S. Bureau of Labor Statistics. Email: [zilberman.alan@bls.gov](mailto:zilberman.alan@bls.gov). Telephone: 202-691-5179.

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**NOTES**

- <sup>1</sup> “Sports Injuries” (U.S. National Library of Medicine, January 2017), <https://medlineplus.gov/sportsinjuries.html>.
- <sup>2</sup> Interview with Walter Jenkins, American Physical Therapy Association, conducted April 27, 2018.
- <sup>3</sup> “Physical Activity Improves Quality of Life” (American Heart Association, March 2015), [http://www.heart.org/HEARTORG/HealthyLiving/PhysicalActivity/FitnessBasics/Physical-activity-improves-quality-of-life\\_UCM\\_307977\\_Article.jsp](http://www.heart.org/HEARTORG/HealthyLiving/PhysicalActivity/FitnessBasics/Physical-activity-improves-quality-of-life_UCM_307977_Article.jsp).
- <sup>4</sup> Interview with Walter Jenkins, American Physical Therapy Association, conducted April 27, 2018.
- <sup>5</sup> Interview with Scott Sailor, National Athletic Trainer Association, conducted April 20, 2018.
- <sup>6</sup> Ibid.
- <sup>7</sup> “National Athletic Trainers’ Association Position Statement: Management of Sport Concussion” (National Athletic Trainers’ Association, 2014), [https://www.nata.org/sites/default/files/concussion\\_management\\_position\\_statement.pdf](https://www.nata.org/sites/default/files/concussion_management_position_statement.pdf).
- <sup>8</sup> Sheila Kaplan and Ben Kelson, “Concussions Can Be Detected With New Blood Test Approved by F.D.A.” *The New York Times*, February 2018, <https://www.nytimes.com/2018/02/14/health/concussion-fda-bloodtest.html>.
- <sup>9</sup> Cody Portner, “Studies Show Decline in Rate of Concussions,” *National Federation of State High School Association*, October 2016, <https://www.nfhs.org/articles/studies-show-decline-in-rate-of-concussions/>.

**SUGGESTED CITATION**

Alan Zilberman, “You don’t need to walk it off: occupations that help to diagnose and treat sports injuries,” *Beyond the Numbers: Employment and Unemployment*, vol. 7, no. 12 (U.S. Bureau of Labor Statistics, August 2018), <https://www.bls.gov/opub/btn/volume-7/you-dont-need-to-walk-it-off.htm>