**Chapter 9: Exercise Equipment Safety**

**Using exercise equipment is potentially hazardous making exercise equipment injuries quite common. However, risk management strategies can be implemented to reduce these injuries and the negligence lawsuits that often follow. This chapter organizes legal liability exposures involving exercise equipment into four categories. Using case examples, each of these categories are discussed so that fitness managers and exercise professionals can gain an understanding of their legal duties and risk management responsibilities.**

Review the learning objectives listed on page 347 in the text. After reading this chapter, complete the following study questions. **Instructions:** **Click on the shaded box provided - then type in your answer.**

**Study Questions**

1. List the four major legal liability exposures involving exercise equipment?
2. Training with free weights was ranked fourth out of the top 20 fitness trends in 2020. In 2021, strength training with free weights was ranked eighth. You can access the 2021 article here:

[Worldwide Survey of Fitness Trends for 2021 : ACSM's Health & Fitness Journal (lww.com)](https://journals.lww.com/acsm-healthfitness/Fulltext/2021/01000/Worldwide_Survey_of_Fitness_Trends_for_2021.6.aspx?context=FeaturedArticles&collectionId=1)

Strength training can be classified into five categories (see the top of p. 350) with all of them involving strength training using free weights.

1. List and briefly describe the three categories of strength training injuries as described by Lavellee and Tucker.
2. List and describe the three classifications of weightlifting injures as described by Fred.
3. Most strength training and weightlifting injuries are musculoskeletal, but rare injuries (e.g., neurologic and cardiovascular) can also occur.
4. List the six common causes of weightlifting injuries as described by physician, Herbert L. Fred.
5. Explain why exercise professionals who lead strength training exercises need to be aware of these underlying causes of injuries.
6. The Valsalva maneuver (V) is difficult to avoid during heavy resistance training (RT).
7. Describe the Valsalva maneuver.
8. Summarize the views of physician, Jonathan Sullivan, regarding heavy RT + V including his recommendations to reduce injuries and legal liability.

**Note:**  Access the entire AHA Scientific Statement (Ref. #11) and review Table 2 that lists the absolute and relative contraindications to resistance training at:

[Resistance Exercise in Individuals With and Without Cardiovascular Disease: 2007 Update | Circulation (ahajournals.org)](https://www.ahajournals.org/doi/10.1161/CIRCULATIONAHA.107.185214?url_ver=Z39.88-2003&rfr_id=ori%3Arid%3Acrossref.org&rfr_dat=cr_pub++0pubmed&)

1. (1) Why did Dr. Jonathan Sullivan refute the NEISS data presented in the Bursik case?

(2) If Dr. Sullivan’s analysis of the NEISS data is correct, what likely caused Debra Busik’s stroke?

1. (1) Answer the following questions regarding *Assaf v. 24 Hour Fitness Inc. and David Stevens:*
2. Why did the court rule the waiver unenforceable?
3. Other cases (e.g., UCF football player Staton Johnson, *Parks, Sicard*, and *Lemaster*) also involved improper spotting or the failure to provide spotting. What are the lessons learned from these “spotting” cases for fitness facilities that provide free weights?

(2) Answer the following questions regarding *Jafri v. Equinox Holdings*:

1. Why was the primary assumption of risk defense ineffective in protecting the personal fitness trainer?
2. What are the lessons learned from this case for all personal fitness trainers?

1. In the spotlight case, *Butler v. Saville et al*., the waiver and the primary assumption of risk defenses were ineffective in protecting the defendants.

1. Why was the wavier ineffective?
2. Why was the primary assumption of risk defense ineffective?
3. How could the serious injuries to the plaintiff have been prevented?
4. Fitness managers are the “risk management managers” of the fitness facility as shown in Figure 9-2, p. 355.
5. Why do fitness manages have a vested interest, from a legal liability perspective, to take their risk management responsibilities seriously?
6. List these risk management responsibilities related to exercise equipment.
7. Why should fitness managers consider buying inclusive exercise equipment that meets ASTM standards specified in “Standard Specification for Universal Design of Fitness Equipment for Inclusive Use by Persons with Functional Limitations and Impairments”?

1. Installing exercise equipment involves proper spacing and posting warning labels/signage according to the manufacturer’s specifications. Once installed, the exercise equipment should also be tested to help ensure it is functioning properly.
2. In addition to the waiver (release) being obtained by fraud and misrepresentation, why did the appellate court in *Jimenez v. 24 Hour Fitness* rule that the waiver was unenforceable?
3. What was the reason, provided by the court, why 24 Hour Fitness did not provide the 6 feet clearance behind the treadmill?
4. What are the two main lessons that fitness managers can learn from the *Jimenez* case?

 **Note:** Jimenez suffered serious head injuries. See the following for a summary of a study that investigated treadmill head injuries: [Treadmill associated head injuries on the rise: an 18 year review of U.S. emergency room visits - PubMed (nih.gov)](https://pubmed.ncbi.nlm.nih.gov/29601218/)

1. Warning labels can easily be posted on almost all exercise equipment, but not on all such as dumbbells, kettlebells, exercise balls, etc. What should fitness managers do to post warnings for this type of equipment? Hint: See p. 363.
2. What is the purpose of the Fitness Facility Safety Sign as shown in Figure 9-5, p. 363?
3. List the four factors that may help a plaintiff prove his/her skin infections came from using the fitness facility.

 **Note:** Plaintiffs may also be able to prove negligence if they can show the facility was not following guidelines such as those from the CDC. For example, see the following CDC website: [COVID-19 Employer Information for Gyms and Fitness Centers | CDC](https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/gym-employers.html)

 Local health departments (city, county, state) may also have guidelines. For example, see Arizona’s requirements at: [indoor-gyms-fitness-centers.pdf (azdhs.gov)](https://www.azdhs.gov/documents/preparedness/epidemiology-disease-control/infectious-disease-epidemiology/novel-coronavirus/community/indoor-gyms-fitness-centers.pdf)

1. Failure to conduct exercise equipment maintenance is a major legal liability exposure.
2. What was the major cause of the serious injury to the plaintiff in *Chavez v. 24 Hour Fitness*?
3. Why did the court in *Chavez* rule that the defendant was grossly negligent?
4. Why did the court rule that the defendant was not grossly negligent in *Grebing v. 24 Hour Fitness?*
5. How did the *Chavez* and *Grebing* courts define gross negligence?
6. Regarding exercise equipment maintenance, describe two major risk management lessons from the *Chavez* and *Grebing* spotlight cases and the *Rampadarath v. Crunch Holdings* case. Hint: See Risk Management Strategy #7 and Key Point on p. 371.
7. **True or False:** Place a T or F in the space provided.

       A) The majority of strength training injuries are acute emergent injuries.

       B) The failure to inform individuals of the risks of heavy resistance training because it will scare them is a legal defense that strength and conditioning coaches can effectively use in a court of law.

       C) Purchase agreements regarding exercise equipment costing more than $500 do not have to be writing.

       D) New York has a statute that permits courts to sanction attorneys engaging in frivolous conduct.

       E) Fitness managers only need to consider two factors when purchasing exercise equipment – the costs and the brand.

       F) The ADA requires fitness facilities to provide “inclusive exercise equipment” designed specifically for persons with disabilities.

       G) Exercise equipment owner’s (or user’s) manuals only include specifications for spacing and maintenance.

       H) Studies have shown high level of bacteria on exercise equipment.

       I) Fitness managers and exercise professionals have a responsibility to remove exercise equipment immediately after receiving a recall from a manufacturer.

       J) Most states have adopted a pure comparative or modified comparative system to determine the percentage of fault of the fitness participant (plaintiff).

1. (1) List the three situations that require the removal of exercise equipment.

(2) What steps should the management have taken to prevent the injury in *Beglin v.*

 *Hartwick College?*

1. What steps should the management have taken to prevent the spoilation of evidence claim made by the plaintiff in *Malouf v. Equinox Holdings, Inc*.*?*
2. What risk management strategies should fitness facilities have in place if they provide exertubes and/or resistance bands?
3. Federal law requires manufacturers to report to the       when they know they have a product that contains a defect that could create an unreasonable risk of serious injury or death.
4. Of the professional organizations that have published standards of practice regarding exercise equipment, which one is recommended to follow and why? Hint: See pp. 374-375 and Risk Management Strategy #9.
5. **Matching:** Indicate the correct response in the space provided from the list of terms below.

       Case in which an expert testified that a strength and conditioning coach who allows a sixth or seventh grader to max out is reckless and creates a substantial increase in harm to kids.

       According to these two organizations, elevations in blood pressure are, generally, not a concern with low- to moderate-intensity resistance training (RT) performed with correct breathing technique and avoidance of the Valsalva maneuver.

       Case in which a class participant was injured when a kettlebell was swung by another participant in the class and summary judgment was denied for Kettlebell.

       Two organizations that have published spacing specifications for treadmills.

       A regulation that Technogym, a global company, had to comply with that was adopted by the European Union (EU) in 2018 containing many privacy rules and hefty penalties for violations.

       A term used to describe technology that can track exercise equipment usage as well as an alert system to notify facility operators when the equipment needs maintenance.

       A signal word for an ASTM hazard classification that indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.

       Federal agency that provides a list of approved disinfectants effective against viruses such as COVID-19.

       A designation of used exercise equipment.

       A term used when evidence is hid, withheld, changed, or destroyed before or during litigation.

       A type of product defect that was the major issue analyzed by the court in *Thomas v. Sport City*.

       Case in which the court ruled the exculpatory language in the documents, signed by the plaintiff, extended to the defendant’s acts of negligence regarding maintaining exercise equipment and leaving defective equipment available to users.

1. *Geczi v. Lifetime Fitness* G. Design
2. General Data Protection Regulation (GDPR) H. AHA and NSCA
3. ASTM and Technogym I. Warning
4. Predictive Asset Management Technologies J. EPA
5. *Lemaster v. Grove City Christian Sch*. K. *Gallant v. Hilton Hotels Corp*.
6. Certified Remanufactured L. Spoilation of Evidence
7. In *Barnhard v. Cybex International*, the plaintiff claimed that the Cybex machine had design and marketing defects. Cybex claimed that the plaintiff misused the equipment (i.e., used the leg extension machine to stretch her arms and shoulders). In addition to the machine having design and marketing defects, the court stated that, although the plaintiff was not using the machine for its *intended purpose*, the use of the machine for stretching was common and, thus, foreseeable. What lessons can fitness managers and exercise professionals learn from this case regarding *foreseeability*?
8. List two cases in which the plaintiff filed a products liability claim against the fitness facility but the court ruled that the facility was not liable because the facility was a provider of services not of products.
9. Risk Management Strategy #10 lists several examples of documents that should be completed and retained related to exercise equipment.

1. What is the main reason for maintaining such records, from a legal liability perspective? In your answer, refer to the *Chavez v. 24 Hour Fitness* case.
2. Records involving instructional programs should be retained. Briefly describe these and the legal protection these documents will help provide. (Hint: See Risk Management Strategy #2).
3. **Case Study:**

David, a 30-year old sedentary individual, joined a fitness facility called Jim’s Best Extreme Workouts (JBEW). He signed a “Waiver and Assumption of Risk” document upon joining. David had heard how this gym had prepared many individuals to compete in power lifting competitions. David had a goal of doing the same someday. This gym provided free weight equipment (e.g., barbells so individuals could perform exercises such as bench presses, bicep curls, squats, and deadlifts) as well as other equipment (e.g., climbing ropes, boxes, and kettlebells). Jim, the owner of JBEW, assigned David to a JBEW employee, a strength and conditioning coach. David’s coach designed a specific exercise routine for David to perform on his first day of training using the barbells and other equipment.

About half way through, David informed his coach that he was very fatigued and was experiencing some shoulder pain. He requested a break. His coach said, “let’s do just one more exercise – rope climbing -- and I am sure you can finish with no problem”. So trusting his coach, he performed this last exercise. As he got part way up the rope, his shoulders gave out and he fell to the floor hitting his head on a kettlebell that was left on the floor. It was common for this gym to have equipment laying around on the floor. Immediately, after David’s fall, the hanging hardware for the rope fell hitting David in the head. The facility had no records that the hanging hardware was properly installed and inspected/maintained as specified in the manufacturer’s specifications. David was unconscious and EMS was called. After being diagnosed with a rotator cuff tear that will require surgery and a serious skull fracture, David and his wife filed a complaint listing several negligence claims against the coach and JBEW.

1. List the types of claims that David likely made against his coach and the facility.
2. Coach
3. Facility
4. Of the six common underlying causes of strength training injuries listed on p. 350, which ones were, likely, the cause of David’s rotator cuff injury?
5. Will the waiver protect the defendants – explain why or why not? **Note:** JBEW is located in a state where waivers are enforceable for personal injury.
6. List risk management strategies that Jim, the owner of JBEW, should have implemented to prevent this injury and lawsuit.