Above and Beyond

# 1 Athletic Training as a Profession

1. Visit the NATA website at [www.nata.org](http://www.nata.org) to find the latest information about athletic training. Write a report about the structure of the professional organization.
2. Visit the NATA website at [www.nata.org](http://www.nata.org) and give a 5-minute presentation on a committee that sounds interesting to you. Describe the purpose of the committee and how you might get involved with this committee early in your career.
3. Examine the NATA position statements, official statements, consensus statements, and support statements located at [www.nata.org/news-publications/pressroom/statements](https://www.nata.org/news-publications/pressroom/statements)

What do you believe are the primary differences between the types of statements?

1. Visit the BOC website at [www.bocatc.org](http://www.bocatc.org) for the latest information about the ATC credential and continuing education.
2. Go to [www.caate.net](http://www.caate.net) and select Accredited Programs to view a list of programs accredited by the Commission on Accreditation of Athletic Training Education (CAATE). Compare the number of entry-level undergraduate programs to the number of entry-level master’s programs. What do you think will happen to this number in the future based on educational reform?
3. Visit the American Academy of Physician Assistants (AAPA) at [www.aapa.org](http://www.aapa.org) to learn more about the role of physician assistants.
4. Visit the National Registry of Emergency Medical Technicians at [www.nremt.org](http://www.nremt.org) to learn more about the educational requirements of the EMS industry.
5. Visit the USDL website and learn more about the jobs of ATs:

[www.bls.gov/oes/current/oes299091.htm](https://www.bls.gov/oes/current/oes299091.htm)

1. Investigate the salaries of ATs in various career settings. Outside of salary, what are the benefits of working in each setting? To do an effective investigation, you may have to interview ATs in each setting.

# 2 Administration and Professional Development

1. Write a report on legal issues in sports medicine by finding a contemporary case “ripped from the headlines.” Discuss it with your classmates using terms from the chapter.
2. Visit [www.bocatc.org](http://www.bocatc.org) and review the continuing education standards for an athletic trainer. Which categories seem most interesting to you? Why do you think it is necessary to have the cardiac care requirement and evidence-based practice (EBP) requirements?
3. Perform an interview of an athletic trainer, team physician, or other health care provider or administrator. Ask them five questions about being a leader.
4. Visit [www.nata.org](http://www.nata.org) and find the NATA code of ethics.
5. Visit [www.bocatc.org](http://www.bocatc.org) and examine the BOC standards of professional practice.
6. Explore one or more of the following suggested readings:

Colston, M.A. 2004. Professionalism and ethics. Informed consent: review and implementation. Athletic Therapy Today 9(1): 29-31.

Craig, D. 2006. Learning professionalism in athletic training education. *Athletic Training Education Journal* 1(1):8-11.

Burningham, D, Deru, L, Berry, D. 2010. What traits make for an effective athletic training educator and mentor? *Athletic Training Education Journal*. 5(4): 183-186.

1. Visit [www.healthinsuranceindepth.com/basics-how-it-works.html](http://www.healthinsuranceindepth.com/basics-how-it-works.html) and read more about how medical insurance works.
2. Visit [www.nata.org/sites/default/files/billing-101-fact-sheet.pdf](http://www.nata.org/sites/default/files/billing-101-fact-sheet.pdf) and read about how ATs get reimbursed for services provided.

# 3 Design and Development of the Athletic Training Facility

1. Read and review the Program Improvement Guide for Certified Athletic Trainers in Secondary School Athletic Programs and review the policies that apply to design and maintenance. Reflect on how these policies can improve athletic training in the HS settings: [www.nata.org/sites/default/files/Secondary-School-Position-Improvement-Guide.pdf](https://www.nata.org/sites/default/files/Secondary-School-Position-Improvement-Guide.pdf)
2. Go online and review websites from area high school and college athletic departments and compare and contrast their facilities. Identify areas for improvement in each of the different facilities based on the pictures they provide on their websites.
3. Consider reasons an athletic program may not have acceptable athletic training facilities and consider ways to encourage administrators to improve the facilities.
4. Review the BOC facility principles ([www.bocatc.org/system/document\_versions/versions/42/original/boc-facility-principles-20170615.pdf?1497543426)](http://www.bocatc.org/system/document_versions/versions/42/original/boc-facility-principles-20170615.pdf?1497543426)) and reflect on the information in this document in comparison to the chapter. What new information did you learn?
5. Create a wish list of ten supplies and equipment you would like to have in an ideal athletic training facility. Provide a cost and rationale for each piece you choose.

# 4 Documentation and Record Keeping

1. Visit this site [www.dummies.com/careers/medical-careers/medical-terminology/medical-terminology-for-dummies-cheat-sheet/](http://www.dummies.com/careers/medical-careers/medical-terminology/medical-terminology-for-dummies-cheat-sheet/) and identify five new root words that you have not yet learned. Combine them with prefixes or suffixes to create new words and define them.
2. Compare and contrast three injury-tracking systems for potential use at your facility by reviewing the article in this chapter (chapter 4). Determine which system would be best for your current situation and provide your rationale.
3. Visit the websites for the injury-tracking systems and practice using the sites to determine ease of use.
4. Visit the medical terminology (practice) site and perform either the “learn” or “flashcard” tasks to practice your medical terminology: <https://quizlet.com/5976835/medical-terminology-practice-flash-cards/>
5. Use this site to practice medical abbreviations: <https://quizlet.com/167910189/medical-abbreviations-practice-flash-cards/>
6. Visit this site to review how to write a SOAP note and then create a mock SOAP note from an imaginary evaluation that you create. [www.wikihow.com/Write-a-Soap-Note](https://www.wikihow.com/Write-a-Soap-Note)

# 5 Fiscal Management

1. Interview an athletic trainer about her role in the fiscal management of her program and how the program manages the inventory.
2. Search online for a scientific article that compares the effectiveness of taping versus bracing to better understand the science behind the practice. What would be your choice and why?
3. Identify ten supplies you would purchase for your athletic training program if money were not an issue. Only one can be a major piece of equipment. Be sure to provide a rationale for your choice.
4. Compare and contrast the fiscal needs of a large Division I collegiate program to that of a small high school program. Are the needs the same, with just a different amount, or does the entire budget change when comparing the two?
5. Create a sample purchase order and requisition sheet for approximately five supplies you would purchase for an athletic training program. Think about how this might be if you had a huge volume of supplies to purchase. Explain why details are important in these documents.
6. Create a mock bid sheet and look online for different companies that would supply ten different supplies and five pieces of equipment. Compare the prices and quality and determine which company you would purchase from; include your rationale.

# 6 The Preparticipation Physical Exam

1. Visit [www.acsm.org](http://www.acsm.org), search “pre-participation physical exam brochure,” and examine the current comment of the American College of Sports Medicine (ACSM).
2. Read the manuscript “The preparticipation sports evaluation” by the American Family Physician group at [www.aafp.org/afp/2015/0901/p371.html](https://www.aafp.org/afp/2015/0901/p371.html). Describe how it compares to the material in your textbook. Are there any differences?
3. The above article has two links that discuss, from different perspectives, the need for a screening ECG as part of the preparticipation examination. Review both of these editorials and compare the perspectives. Write a brief report defending your position on this particular screening and support your stance. Present it to the class in a debate if time permits:

[www.aafp.org/afp/2015/0901/p338.html](https://www.aafp.org/afp/2015/0901/p338.html) In favor of ECG screenings

[www.aafp.org/afp/2015/0901/p343.html](https://www.aafp.org/afp/2015/0901/p343.html) Against ECG screenings

1. Review the following article: Conley et al (2014). “National Athletic Trainers’ Association position statement: Preparticipation physical examinations and disqualifying conditions” at [www.ncaa.org/sites/default/files/NATA-Position-Statement-PPEs-and-Disqualifying-Conditions.pdf](https://www.ncaa.org/sites/default/files/NATA-Position-Statement-PPEs-and-Disqualifying-Conditions.pdf). Why is it important to understand disqualifying conditions? Explain how they differ among sports.
2. Visit [www.ncaa.org/sites/default/files/NATA-Position-Statement-PPEs-and-Disqualifying-Conditions.pdf](http://www.ncaa.org/sites/default/files/NATA-Position-Statement-PPEs-and-Disqualifying-Conditions.pdf) and review the types of disqualifying conditions and how sports are classified.

# 7 Introduction to Anatomy

1. If you are interested in learning more about the various anatomical systems of the body, visit the following websites, click on a system, and have fun learning:

[www.nlm.nih.gov/research/visible/visible\_human.html](http://www.nlm.nih.gov/research/visible/visible_human.html)

[www.innerbody.com/htm/body.html](http://www.innerbody.com/htm/body.html)

1. Go to <https://sites.google.com/a/umich.edu/bluelink/curricula/first-year-medical-curriculum>, which contains an atlas of various parts of the human body. The site allows you to view the anatomical structures in great detail. Focus on the musculoskeletal units (chapters 15 – 20) on this website for this particular unit.
2. Visit the following website to find charts you could use as learning tools:

[www.enchantedlearning.com/subjects/anatomy/titlepage.shtml](http://www.enchantedlearning.com/subjects/anatomy/titlepage.shtml)

1. Students who are interested in learning more detailed anatomy can investigate the following websites:

[www.getbodysmart.com/](http://www.getbodysmart.com/)

[www.innerbody.com/htm/body.html](http://www.innerbody.com/htm/body.html)

1. Visit [www.human-anatomy.net](http://www.human-anatomy.net) and examine the detailed images of human anatomy.

# 8 Basics of Tissue Injuries

1. Using any biomechanics, modalities, or therapeutic interventions from your textbook, with support from at least three contemporary websites, write a report about the healing process and some of the procedures that may enhance it. Are there differences in recommendations amongst the references? What might account for these, and how do you handle these as an athletic training student?
2. Interview a physician. Determine when and why the physician uses certain casting materials and bandages to treat fractures and wounds.
3. Visit the following website, review information related to sprains and strains, and view the types of fractures that occur in sport:

[www.sportsinjuryclinic.net](http://www.sportsinjuryclinic.net).

1. Visit three websites that have musculoskeletal braces and splints. Create a PREZI or PPT presentation to share with your class highlighting at least six different products. Provide a picture, indicate its preferred use with advantages and disadvantages, describe how it protects the athlete, and discuss potential alternatives.

# 9 Head Injuries

1. Visit the website for the Brain Injury Association of America at [www.biausa.org/brain-injury](https://www.biausa.org/brain-injury) and examine the information related to function of a healthy brain and an injured brain.
2. Visit the website for the American Academy of Family Physicians at

[www.familydoctor.org](http://www.familydoctor.org)

and write a report about various brain and nervous system disorders.

1. Examine the information provided at the Brain Injury Resource Center located at [www.headinjury.com](http://www.headinjury.com) and give a brief presentation to your peers.
2. Visit [www.impacttest.com](http://www.impacttest.com) and examine the ImPACT neurocognitive testing program for concussion management.
3. Visit [www.sportsconcussion.co.za/Pharos/Computerised\_Testing.php](http://www.sportsconcussion.co.za/Pharos/Computerised_Testing.php)

and learn about the CogState Sport neurocognitive testing program for sport concussions.

1. Visit each website identified in activities 4 and 5 and compare and contrast the features offered by the various programs.
2. Visit the following website to learn more about neuroanatomy:

<http://faculty.washington.edu/chudler/nsdivide.html#pns>

1. Visit the following website and read about mouth guards and how they help prevent concussions:

[www.sportsdentistry.com/concussion.html](http://www.sportsdentistry.com/concussion.html)

1. The references listed below may be used to complete any of the following projects:

* Draw a side and front view of the brain. Label the parts of the brain, the functions, and areas controlled.
* Locate, compare, and contrast other concussion grading systems found in the literature.
* Write a report on how long it takes to recover from a concussion.
* Write a report on the physiological effects of concussions.

Bailes, J.E., and V. Hudson. 2001. Classification of sport-related head trauma: A spectrum of mild to severe injury. *Journal of Athletic Training* 36(3): 236-243.

Broglio, S., and T. Puetz. 2008. The effect of sport concussion on neurocognitive function, self-report symptoms and postural control: A meta-analysis. *Sports Medicine* 38(1): 53-67.

Cantu, R.C. 2001. Posttraumatic retrograde and anterograde amnesia: Pathophysiology and implications in grading and safe return to play. *Journal of Athletic Training* 36(3): 244-248.

Covassin, T., C.B. Swanik, and M. Sachs. 2003. Sex differences and the incidence of concussions among collegiate athletes. *Journal of Athletic Training* 38(3): 238-244.

Guskiewicz, K.M., S.L. Bruce, R.C. Cantu, M.S. Ferrara, J.P. Kelly, M. McCrea, M. Putukian, and T.C. Valovich McLeod. 2004. NATA position statement: Management of sport-related concussion. *Journal of Athletic Training* 39(3): 280-297.

Giza, C.C., and D.A. Hovda. 2001. The neurometabolic cascade of concussion. *Journal of Athletic Training* 36(3): 228-235.

Guskiewicz, K., D. Perrin, and B. Gansneder. 1996. Effects of mild head injury on postural stability in athletes. *Journal of Athletic Training* 31(4): 300-306.

Kaut, K.P., R. DePompei, J. Kerr, and J. Congeni. 2003. Reports of head injury and symptom knowledge among college athletes: Implications for assessment and educational intervention. *Clinical Journal of Sport Medicine* 13(4): 213-221.

Kelly, J.P. 2001. Loss of consciousness: Pathophysiology and implications in grading and safe return to play. *Journal of Athletic Training* 36(3): 249-252.

Mueller, F.O., R.C. Cantu, and S.P. Van Camp. 1996. *Catastrophic injuries in high school and college sports.* Champaign, IL: Human Kinetics.

Putukian, M., and R. Echemendia. 1996. Managing successive minor head injuries. *Physician and Sportsmedicine* 24(11): 25-38.

Susco, T.M. 2003. Injury management update. Establishing concussion-assessment guidelines: on-field, sideline, and off-field. *Athletic Therapy Today* 8(4): 48-50.

Tommasone, B., and T. Valovich McLeod. 2006. Contact sport concussion incidence. *Journal of Athletic Training* 41(4): 470-472.

# 10 Facial Injuries

1. Collect brochures from your dentist’s office and create a poster about the various types of dental injuries.
2. Write a report on a facial injury of your choice. Use the following materials for assistance:

Behrens, D. 2006. Treatment of epistaxis in the emergency department. Emergency Medicine Journal 23(3): 241.

Honsik, K. 2004. Emergency treatment of dentoalveolar trauma: Essential tips for treating active patients. Physician and Sportsmedicine 32(9): 23.

Labella, C.R., B.W. Smith, and A. Sigurdsson. 2002. Effect of mouthguards on dental injuries and concussions in college basketball. Medicine and Science in Sports and Exercise 34(1): 41-44.

Lahti, H., J. Sane, and P. Ylipaavalniemi. 2002. Dental injuries in ice hockey games and training. Medicine and Science in Sports and Exercise 34(3): 400-402.

Leong, S.C., R.J. Roe, and A. Karkanevatos. 2005. No-frills management of epistaxis. Emergency Medicine Journal 22: 470-472.

Moeller, J.L., and S.F. Rifat. 2003. Identifying and treating uncomplicated corneal abrasions. Physician and Sportsmedicine 31(8): 15.

Moylan, F. 2003. Swimmer’s ear mystery. Physician and Sportsmedicine 31(9): 48.

1. Visit the website of Prevent Blindness America and create a poster about how to prevent eye injuries:

[www.preventblindness.org/](https://www.preventblindness.org/)

1. Visit the Mayo Clinic website and summarize the swimmer’s ear prevention tips:

[www.mayoclinic.com/health/swimmers-ear/DS00473/DSECTION=prevention](http://www.mayoclinic.com/health/swimmers-ear/DS00473/DSECTION=prevention)

1. Create a brief report on eye injuries by visiting the Coalition to Prevent Sports Eye Injuries and reviewing a fact sheet on common eye injuries: <http://image.aausports.org/pdf/CTPSEIFactSheet.pdf>
2. Review the position statement by the NATA on oral injuries and prepare a poster presentation emphasizing prevention and care:

[www.nata.org/news-publications/pressroom/statements/position](http://www.nata.org/news-publications/pressroom/statements/position)

1. Visit these websites to obtain information related to dental health:

[www.activebeat.com/your-health/women/6-ways-to-brush-up-on-oral-hygiene/?utm\_medium=cpc&utm\_source=bing&utm\_campaign=AB\_BNG\_US\_DESK-SearchMarketing&utm\_content=o\_c\_73598596061714&cus\_widget=kwd-73598574175938:loc-190&utm\_term=oral%20hygiene%20information&cus\_teaser=&msclkid=384056e277ea198d93450c3d08881a09](https://www.activebeat.com/your-health/women/6-ways-to-brush-up-on-oral-hygiene/?utm_medium=cpc&utm_source=bing&utm_campaign=AB_BNG_US_DESK-SearchMarketing&utm_content=o_c_73598596061714&cus_widget=kwd-73598574175938:loc-190&utm_term=oral%20hygiene%20information&cus_teaser=&msclkid=384056e277ea198d93450c3d08881a09)

[www.webmd.com/oral-health/features/oral-health-affects-wellness](https://www.webmd.com/oral-health/features/oral-health-affects-wellness)

[www.healthychildren.org/english/healthy-living/oral-health/pages/default.aspx](https://www.healthychildren.org/english/healthy-living/oral-health/pages/default.aspx)

1. Visit this website and write a summary of the information related to preventing injuries to the face:

[www.njfacialsurgery.com/preventing-injury/prevention-the-best-policy-for-avoiding-maxillofacial-injuries/](http://www.njfacialsurgery.com/preventing-injury/prevention-the-best-policy-for-avoiding-maxillofacial-injuries/)

1. April is National Facial Protection Month; create a public service poster that gives safety tips to prevent facial injuries.

# 11 Throat and Thorax Injuries

1. Interview a cardiologist and write a report on sudden death syndrome.
2. Using a cow heart (available at grocery stores), label the parts of the heart. Give a classroom demonstration.
3. Visit the following website and examine how the heart works:

<http://library.med.utah.edu/kw/pharm/hyper_heart1.html>

1. Visit [www.blaufuss.org](http://www.blaufuss.org) to listen to various heart sounds.
2. Visit the website below and perform the quizlet on thoracic injuries to review the content for the unit:

<https://quizlet.com/22166678/thorax-and-abdomen-injuries-flash-cards/>

1. Visit the following website to listen to the various heart and lung sounds:

[www.med.ucla.edu/wilkes/index.htm](http://www.med.ucla.edu/wilkes/index.htm)

# 12 Abdominal Injuries

1. Using one of the references listed in #2, draw the external abdomen. Include the pain referral points of the abdominal organs.
2. Examine one of the following research studies and write a summary:

Johnson, J.D., and W.W. Briner, Jr. 2005. Primary care of the sports hernia. Physician and Sportsmedicine 33(2): 35.

McGuine, T. 1996. Recognizing abdominal injuries in high school athletes. Sports Plus Winter/Spring: 2-3.

Meyers, W., E. Yoo, O. Devon, N. Jain, M. Horner, C. Lauencin, et al. 2007. Understanding “sports hernia” (athletic pubalgia): The anatomic and pathophysiologic basis for abdominal and groin pain in athletes. Operative Techniques in Sports Medicine 15(4): 165-177.

National Safety Council. 2001. First aid and CPR. 4th ed. Boston: Jones and Bartlett.

1. Read one of the following case studies or find one yourself (and clear it with your teacher) and write a brief report to share with your class:

Itagaki, M., and N. Knight. 2004. Kidney trauma in martial arts: A case report of kidney contusion in jujitsu. American Journal of Sports Medicine 32(2): 522-524.

Massie, J., D. Donnelly, and K. Ricker. 2009. Liver laceration sustained by a college football player. Athletic Therapy Today 14(2): 23-26.

Unverzagt, C., T. Schuemann, and J. Mathisen. 2008. Differential diagnosis of a sports hernia in a high school athlete. Journal of Orthopaedic and Sports Physical Therapy 38(2): 63-70.

1. Revisit the quizlet site and respond to the abdominal questions from the prior unit:

<https://quizlet.com/22166678/thorax-and-abdomen-injuries-flash-cards/>

1. Visit this website and review the information you can find from listening or auscultating the abdomen:

[www.healthline.com/health/abdominal-sounds#other-symptoms](https://www.healthline.com/health/abdominal-sounds#other-symptoms)

# 13 Spinal Injuries

1. What types of spine injuries do you think are most common in football? Why? What types of spine injuries are most common in gymnastics? Why? What about sports such as tennis and racquetball?
2. Select one or more of the following suggested readings or select one of your own (clear it with your teacher) and write a report on spine injuries:

Beattie, P. 2008. Current understanding of lumbar intervertebral disc degeneration: A review with emphasis upon etiology, pathophysiology, and lumbar magnetic resonance imaging findings. Journal of Orthopaedic and Sports Physical Therapy 38(6): 329-340.

Boden, B., and C. Jarvis. 2009. Spinal injuries in sports. Physical Medicine and Rehabilitation Clinics of North America 20(1): 55-68.

Cassidy, R., W. Shaffer, and D. Johnson. 2005. Sports medicine update: Spondylolysis and spondylolisthesis in the athlete. Orthopedics 28(11): 1331-1333.

Moeller, J.L., and S.F. Rifat. 2001. Spondylolysis in active adolescents: Expediting return to play. Physician and Sportsmedicine 29(12): 27-32.

Oakley, J.C. 2003. An update on the treatment of chronic low back pain. Critical Reviews in Physical and Rehabilitation Medicine 15(2): 113-140.

Standaert, C.J. 2002. Practice management: Spondylolysis in the adolescent athlete. Clinical Journal of Sport Medicine 12(2): 119-122.

Watkins, R.C. 2002. Lumbar disc injury in the athlete. Clinics in Sports Medicine 21(1): 147-165.

1. Write a back-strengthening program for one of your school teams. Keep in mind the level of conditioning required as well as the amount of training time that the team can devote to your program. Be sure to integrate exercises that will be specific to your team and the demands of the sport. Share your program with your AT and get some feedback or present it to your classmates.
2. Examine the information at the following websites and make a poster about the causes of spine injuries:

[www.back.com/causes-trauma-musculoskeletal.html](http://www.back.com/causes-trauma-musculoskeletal.html)

[www.knowyourback.org/knowyourback](https://www.knowyourback.org/knowyourback)

1. Visit [www.youtube.com/watch?v=kVy8a1TB-uU](https://www.youtube.com/watch?v=kVy8a1TB-uU) and review the anatomy of the spine.
2. Visit the following website and watch the narrated video related to spinal anatomy and movement:

[www.spine-health.com/video/spine-anatomy-interactive-video](http://www.spine-health.com/video/spine-anatomy-interactive-video)

1. Visit [www.spineuniverse.com](http://www.spineuniverse.com) for resources relating to spine health and select one topic for presentation to your classmates.

# 14 Shoulder Injuries

1. Write a brief one-page essay about the shoulder. Talk about how you might redesign the shoulder to make it less prone to the injuries listed in this chapter.
2. Examine the American Sports Medicine Institute’s position statement regarding pitching by young athletes and write a summary:

[www.asmi.org/research.php?page=research&section=positionStatement](http://www.asmi.org/research.php?page=research&section=positionStatement)

1. Visit the following website to compare and contrast two shoulder-strengthening exercises for surgical repair of the rotator cuff: [www.stoneclinic.com/shoulder-rehabilitation-protocols](http://www.stoneclinic.com/shoulder-rehabilitation-protocols)
2. Go online and find a source that explains how to rehabilitate a shoulder injury. Compare how a youth’s program might differ from that of someone who is older.
3. Examine one of the following sources and write a brief report:

Bonza, J., S. Fields, E. Yard, and R. Comstock. 2009. Shoulder injuries among United States high school athletes during the 2005-2006 and 2006-2007 school years. Journal of Athletic Training 44(1): 76-83.

Housner, J.A., and J.E. Kuhn. 2003. Clavicle fractures: Individualizing treatment for fracture type. Physician and Sportsmedicine 31(12): 30-36.

Kibler, W.B. 2003. Rehabilitation of rotator cuff tendinopathy. Clinics in Sports Medicine 22(4): 837-847.

Kibler, W., and A. Sciascia. 2008. Rehabilitation of the athlete’s shoulder. Clinics in Sports Medicine 27(4): 821-831.

Olsen, S.J., G.S. Fleisig, S. Dun, J. Loftice, and J.R. Andrews. 2006. Risk factors for shoulder and elbow injuries in adolescent baseball pitchers. American Journal of Sports Medicine 34: 905-912.

Park, M.C., T.A. Blaine, and W.N. Levine. 2002. Shoulder dislocation in young athletes: Current concepts in management. Physician and Sportsmedicine 30(12): 41-48, 55-56.

# 15 Elbow Injuries

1. Read the following article related to reconstruction of the medial collateral ligament and write a summary:

Erne, H., I. Zouzias, and M. Rosenwasser. 2009. Medial collateral ligament reconstruction in the baseball pitcher’s elbow. Hand Clinics 25(3): 339-346.

1. Read the following article related to activity modification to prevent elbow injuries and write a summary:

Brockenbrough, G. 2009. Prescribe less play to prevent elbow injuries in pediatric/adolescent athletes. *Orthopedics Today* 29(6): 28.

1. Examine the following article related to designing a strength-and-conditioning program for pitchers in order to prevent elbow injuries and then write a summary:

Borelli, A. 2009. Engineering a strong pitching elbow: An off-season training plan*. Journal of Strength and Conditioning* 31(2): 64-73.

1. Review the link on the Tommy Johns procedure for adolescent athletes and prepare a presentation to discuss ways to prevent this surgery in young athletes: [www.asmi.org/research.php?page=research&section=TJpositionstatement](http://www.asmi.org/research.php?page=research&section=TJpositionstatement)
2. Review this YouTube video and be able to discuss the biomechanics of youth pitchers and how it can put them at risk for injury: [www.youtube.com/watch?v=DuynL5cAZa4&feature=youtu.be](https://www.youtube.com/watch?v=DuynL5cAZa4&feature=youtu.be)
3. Evaluate the following website and prepare a summary presentation on the causes, treatment and rehabilitation of tennis elbow:

[www.sports-health.com/sports-injuries/elbow-injuries](https://www.sports-health.com/sports-injuries/elbow-injuries)

# 16 Wrist and Hand Injuries

1. Write a report on the proper management of a specific hand injury selected from the injuries listed in the text.
2. Examine the following article and write a report related to carpal fractures in athletes:

Marchessault, J., Conti, and M. Baratz. 2009. Carpal fractures in athletes excluding the scaphoid. Hand Clinics 25(3): 371-388.

1. Read the following article and summarize the key points related to the rare but problematic issue of neural and vascular injuries that occur among athletes:

Ruchelsman, D.E., and S.K. Lee. 2009. Neurovascular injuries of the hand in athletes. Current Orthopaedic Practice 20(4): 409-415.

1. Read the following article related to forearm and wrist injury rates of football players and summarize the findings:

Carlisle, J.C, C.A. Goldfarb, N. Mall, J.W. Powell, and M.J. Matava. 2008. Upper extremity injuries in the National Football League, part II: Elbow, forearm, and wrist injuries. American Journal of Sports Medicine 36(10): 1945-1952.

1. Read the following articles related to forearm and wrist injury and summarize the findings:

Altizer, L. 2003a. Hand and wrist fractures, part I. Orthopaedic Nursing 22(2): 131-138.

Altizer, L. 2003b. Hand and wrist fractures, part II. Orthopaedic Nursing 22(3): 232-239.

Gilula. 2013. Traumatic axial dislocation injuries of the wrist. *Radiology* 267 (3) 680-689.

Trybus, M., Lorkowski, J., and W. Hiadki. 2006. Causes and consequences of hand injuries. *American Journal of Surgery* 192 (1): 52-57.

1. Visit some sports medicine equipment websites to compare and contrast the types of wrist splints available to treat and prevent injuries.
2. Visit [www.sportsmed.org/aossmimis/STOP/Downloads/SportsTips/HandandWristInjuries.pdf](http://www.sportsmed.org/aossmimis/STOP/Downloads/SportsTips/HandandWristInjuries.pdf)

and then give a presentation about common hand injuries and how care for them.

# 17 Hip, Pelvis, and Thigh Injuries

1. Read the following case report related to a torn labrum and present a summary:

<http://physiorehab.in/cs-hip-labral-tear/>

1. Read one of the following articles and explain common signs, symptoms, and treatment of the conditions described:

Contusions follow-up: return to play, complications, prevention <http://emedicine.medscape.com/article/88153-followup>

Erickson, L.N. and M. A. Sherry. 2017. Rehabilitation and return to sport after hamstring strain injury. *Journal of Sport and Health Science* 6: 262-270.

Kovacs, M.S. 2006. The argument against static stretching before sport and physical activity. *Athletic Therapy Today* 11(3): 6-8.

1. Read the following article related to strength imbalances and the occurrence of hamstring strains and summarize your findings: Croisier, J., S. Ganteaume, J. Binet, M. Genty, and J. Ferret. 2008. Strength imbalances and prevention of hamstring injury in professional soccer players: A prospective study. American Journal of Sports Medicine 36(8): 1469-1475.
2. Read this literature review related to causes of hamstring strain reoccurrence and articulate what you believe to be the strongest argument as to why hamstring strains reoccur: DeWitt, J., and T. Vidale. 2014. Recurrent hamstring injury: Considerations following operative and non-operative management. *International Journal of Sports Physical Therapy* 9 (6): 798-812.
3. Examine the following website, which contains information about hamstring strains, and create a poster presentation about how these injuries occur and how they should be treated:

<http://orthoinfo.aaos.org/topic.cfm?topic=A00408>

1. Visit this site <https://quizlet.com/16735749/hip-injuries-flash-cards/> and perform the quiz on hip injuries to test your knowledge.

# 18 Knee Injuries

1. Find a text dedicated to athletic injury assessment and develop a checklist of how to evaluate a knee injury.
2. Visit the following site on ehealthMD and investigate the information on ACL reconstructive surgery: [www.ehealthmd.com/library/acltears/ACL\_whatis.html](http://www.ehealthmd.com/library/acltears/ACL_whatis.html).
3. Review the following websites and write a report on knee injuries among female athletes:

[www.nismat.org/patients/injury-evaluation-treatment/lower-body/knee-injuries-and-the-female-athlete](http://www.nismat.org/patients/injury-evaluation-treatment/lower-body/knee-injuries-and-the-female-athlete)

[www.peakendurancesport.com/endurance-training/strength-conditioning-and-flexibility/female-athletes-strength-training-exercises-knee-injuries/](http://www.peakendurancesport.com/endurance-training/strength-conditioning-and-flexibility/female-athletes-strength-training-exercises-knee-injuries/)

1. Visit Pubmed at [www.ncbi.nlm.nih.gov/pubmed/](https://www.ncbi.nlm.nih.gov/pubmed/) and select a type of knee injury you would like to study. Find two articles related to the topic and create a two-page report for your class. Be sure to be specific as you search for articles to ensure you are getting the topic you want.
2. Find two online sites that have orthopedic knee injury information for your review. Look up the same topics you reviewed in Pubmed. Explain the difference between the information you found on the Pubmed journals site and the information found on the other sites. Describe who might most be informed by each of the two types of resources regarding knee injuries and why.
3. Find a video that demonstrates the procedure for a total knee replacement. Prepare a presentation that discusses the etiology, surgery, and rehabilitation required of this surgery. Be certain to include a home exercise program and precautions as well.

# 19 Foot, Ankle, and Lower-Leg Injuries

1. Write a report on one of the following subjects, including the prevention, cause, treatment, and rehabilitation of the condition:

* Plantar fasciitis
* Anterior compartment syndrome

1. Using the resources listed in the following activity and at least one online video, write a report on one of these topics:

* Orthotics and their uses
* Walking and running gaits

1. Using one of the following websites or journal articles, write a report about a specific ankle or lower-leg injury:

[www.apma.org/](http://www.apma.org/)

<http://podiatrychannel.com/ankleinjuries/>

Bauer, A., E. Bluman, M. Wilson, and C. Chiodo. 2009. Injuries of the distal lower extremity syndesmosis. Current Orthopaedic Practice 20(2): 111-116.

Hadzic, V., T. Sattler, E. Topole, Z. Jarnovic, H. Burger, and E. Dervisevic. 2009. Risk factors for ankle sprain in volleyball players: A preliminary analysis. Isokinetics and Exercise Science 17(3): 155-160.

Heidelbaugh, J.J. and H. Lee. 2009. Management of the ingrown toenail. *American Family Physician* 79(4: 303-308.

Kemler, E., I. van de Port, S. Schmikli, B. Huisstede, A. Hoes, and F. Backx. 2015. Effects of soft bracing or taping on lateral ankle sprain: A non-randomized controlled trial evaluating recurrence rates and residual symptoms at one year. *Journal of Foot and Ankle Research* 8: 13.

Liu, G. T, and M. D. VanPelt. 2011. Mastering the treatment of high ankle sprains. *Podiatry Today* 24 (1.

Palmer, D. 2007. Assessment and management of patients with Achilles tendon rupture. Advanced Emergency Nursing Journal 29(3): 249-259.

Pease, J., M. Miller, and R. Gumoc. 2009. An easily overlooked injury: Lisfranc fracture. Military Medicine 174(6): 645-646.

Pohl, M., J. Hamill, and I. Davis, I. 2009. Biomechanical and anatomic factors associated with a history of plantar fasciitis in female runners. Clinical Journal of Sport Medicine 19(5): 372-376.

Refshauge, K., J. Raymond, S. Kilbreath, L. Pengel, and I. Heijnen. 2009. The effect of ankle taping on detection of inversion-eversion movements in participants with recurrent ankle sprain. American Journal of Sports Medicine 37(2): 371-375.

Tsunoda, M., and K. Tsunoda. 2014. Patient-controlled taping for the treatment of ingrown toenails. *Annals of Family Medicine* 12 (6): 553-555.

Yong, M. S. and Y. S. Lee. 2017. Effect of ankle proprioceptive exercise on static and dynamic balance in normal adults. *Journal of Physical Therapy Science* 29(2); 242-244.

Young, C. 2017.

Ankle sprain clinical presentation. Medscape:

[emedicine.medscape.com/article/1907229-clinical](http://emedicine.medscape.com/article/1907229-clinical)

1. Prepare a presentation that compares and contrasts two injuries on this website:

[www.sports-health.com/sports-injuries/ankle-and-foot-injuries](https://www.sports-health.com/sports-injuries/ankle-and-foot-injuries)

1. Complete the foot and ankle quizlet at

<https://quizlet.com/16394876/the-foot-and-ankle-flash-cards/>

1. Review any return-to-running protocol found on the internet and consider how you would customize this protocol for a selected sport.

# 20 Patient Assessment and Treatment Methods

1. Use the Internet to determine what the following conditions are and why some modalities are contraindicated in their treatment: thrombophlebitis, hiatal hernia, osteoporosis, and peripheral vascular disease.
2. Select a specific therapeutic modality from one of the following texts and write a report:

Denegar, C.R., E. Saliba, and S. Saliba. 2016. *Therapeutic modalities for musculoskeletal injuries.* 4th ed. Champaign, IL: Human Kinetics.

Knight, K.L., and D.O. Draper. 2013. *Therapeutic modalities: The art and science.* Philadelphia: Lippincott Williams & Wilkins.

Prentice, W.E. 2009. Therapeutic modalities for sports medicine and athletic training. 6th ed. Boston: McGraw-Hill.

Starkey, C. 2013. *Therapeutic modalities.* 4th ed. Philadelphia: FA Davis.

1. Select a rehabilitation topic from one of the following texts and write a one-page report to present to your classmates:

Thein, Brody, L., and P. Richley Geigle. 2009. *Aquatic exercise for rehabilitation and training.* Champaign, IL: Human Kinetics.

Houglum, P.A. 2010. Therapeutic exercise for athletic injuries. 3rd ed. Champaign, IL: Human Kinetics.

Prentice, W.E. 2015. Rehabilitation techniques for sports medicine and athletic training. 6th ed. Thorofare, NJ: Slack Incorporated.

Rozenfeld, E. and L. Kallchaman. 2016. New is the well-forgotten old: The use of dry cupping in musculoskeletal medicine. *Journal of Bodywork Movement Therapies* 20(1): 173-176.

1. Describe common techniques used to assess progress of a treatment protocol and reasons why you would modify a treatment.
2. Go online and find a functional assessment protocol you would use for a musculoskeletal injury or condition. Describe the condition and why the assessment protocol is relevant.

# 21 Reconditioning Programs

1. Visit one of the following websites to find information related to strength training and conditioning. Write a one-page summary of your findings:

[www.runnersworld.com/strength-training/10-essential-strength-exercises-for-runners](http://www.runnersworld.com/strength-training/10-essential-strength-exercises-for-runners)

[www.nsca.com/education/articles/kinetic-select/benefits-of-flexibility-training/](http://www.nsca.com/education/articles/kinetic-select/benefits-of-flexibility-training/)

[www.nsca.com/education/articles/nsca-coach/developing-athleticism-is-the-c.o.r.e.-of-positive-youth-development/](http://www.nsca.com/education/articles/nsca-coach/developing-athleticism-is-the-c.o.r.e.-of-positive-youth-development/)

[www.acefitness.org/blog/5375/back-to-basics-strength-training-workout](http://www.acefitness.org/blog/5375/back-to-basics-strength-training-workout)

1. Examine the following information related to weight-room facility rules offered by the Collegiate Strength and Conditioning Coaches Association and be prepared to discuss at least three of them regarding reasons for implementing them into the rules:

[www.cscca.org/document/facilityrulesandprocedures](https://www.cscca.org/document/facilityrulesandprocedures)

1. Visit the following Mayo Clinic *w*ebsite to learn more about exercises for core strength and prepare a brief presentation demonstrating at least *four* of the exercises:

[www.mayoclinic.com/health/core-strength/SM00047](http://www.mayoclinic.com/health/core-strength/SM00047).

1. Read one of the following articles and write a one-page summary:

Lehman, G. J. 2006. Resistance training for performance and injury prevention in golf. *The Journal of the Canadian Chiropractic Association* 50(1): 27-42.

Lloyd, R. S., J. B. Cronin, A. D. Faigenbaum, D. Avery, G. Gregory, R. Howard, W. J. Kraemer, L. J. Micheli, G. D. Myer and J. L. Oliver. 2016. National Strength and Conditioning Association position statement on long-term athletic development. *The Journal of Strength and Conditioning Research* 30(6): 1491-1509.

Popp, J. K., D. M. Bellar, D. L. Hoover, L. Donald, B. W. Craig, B. N. Leitzelar, E. A. Wanless, and L. W. Judge. 2017. Pre-and post-activity stretching practices of collegiate athletic trainers in the United States. *The Journal of Strength and Conditioning Research* 31(9): 2347-2354.

1. Visit the Armyprt website at [www.armyprt.com/special\_conditioning\_programs/reconditioning.shtml](http://www.armyprt.com/special_conditioning_programs/reconditioning.shtml) and review the contents of this program. What is unique about this program as a protocol for army personnel? Which aspects would be valuable to general population*?*

# 22 Psychosocial Aspects of Athletic Training

1. Read one of the following articles and write a one-page summary:

McLeod, T., R. Bay, J. Parsons, E. Sauers, and A. Snyder. 2009. Recent injury and health-related quality of life in adolescent athletes. Journal of Athletic Training 44(6): 603-610.

Stiller-Ostrowski, J., D. Gould, and T. Covassin. 2009. An evaluation of an educational intervention in psychology of injury for athletic training students. Journal of Athletic Training 44(5): 482-489.

Walker, N., J. Thatcher, and D. Lavallee. 2007. Psychological responses to injury in competitive sport: A critical review. Journal of the Royal Society for the Promotion of Health 127(4): 174-180.

1. Investigate goal setting and how to set attainable goals at <https://positivepsychologyprogram.com/goal-setting/> and discuss the strategies with your classmates.
2. Investigate and review articles about anxiety and performance, such as the article here, and be prepared to present a brief report regarding strategies for minimizing anxiety:

[www.verywellfit.com/sports-psychology-for-performance-anxiety-3119436](http://www.verywellfit.com/sports-psychology-for-performance-anxiety-3119436).

1. Find an online video about visual imagery and discuss how an athlete might use it to improve performance.
2. Read about attention-seeking athletes and why they behave the way that they do. Provide a brief report about the causes and appropriate responses to attention-seeking athletes.

Read the document from the NCAA and discuss the stages of loss and psychological exhaustion associated with injury and sport at [www.ncaa.org/sport-science-institute/mind-body-and-sport-how-being-injured-affects-mental-health](http://www.ncaa.org/sport-science-institute/mind-body-and-sport-how-being-injured-affects-mental-health).

# 23 Planning for Emergencies

1. Find an existing crisis or emergency action plan and use the NATA position statement on emergency planning in athletics to evaluate how well constructed the emergency action plan is. Examine the NATA position statement and use it as a guide to create a venue-specific emergency action plan. Here is the source for the position statement:

Andersen, J.C., R.W. Courson, D.M. Kleiner, and T.A. McLoda. 2002. National Athletic Trainers’ Association position statement: Emergency planning in athletics. Journal of Athletic Training 37(1): 99-104.

1. Examine the following website, which contains an article on emergency action planning, and prepare a brief presentation for your class:

<http://thesportjournal.org/article/introducing-a-risk-assessment-model-for-sport-venues/>

1. Select a sport that you are unfamiliar with, such as rodeo, x-games, bobsledding, snowboarding, luge, or other sports, and create an emergency action plan for the related venue(s).
2. Review the guidelines from the National Association of Youth Sports regarding EAPs and contrast them with the guidelines set forth in the NATA Position Statement: [www.nays.org/resources/more/emergency-action-plans/](https://www.nays.org/resources/more/emergency-action-plans/)
3. Find a legal case that involved a lawsuit due to poor emergency planning. Discuss the importance of having a plan in the context of this particular case.

# 24 Primary and Secondary Procedures

1. Examine a current first aid and CPR text or online guidelines and give a presentation about people who are most likely to suffer a heart attack and how to prevent a heart attack from occurring.
2. Determine which cardiac and pulmonary conditions cannot be helped by using CPR. What are the reasons for the failure of CPR in each instance? What is your course of action in these cases?
3. Access the OSHA website’s bloodborne pathogen link at

[www.osha.gov/SLTC/bloodbornepathogens/index.html](http://www.osha.gov/SLTC/bloodbornepathogens/index.html)

and summarize the most up-to-date disease prevention strategies.

1. Find a website to learn about sudden cardiac arrest and present your findings regarding causes and prevention.
2. Examine the following websites from the CDC and learn more about MRSA:

[www.cdc.gov/mrsa/index.html](http://www.cdc.gov/mrsa/index.html)

[www.cdc.gov/mrsa/community](http://www.cdc.gov/mrsa/community)

1. Access the following OSHA website and examine the guidelines for dealing with blood-borne pathogens. Prepare a brief presentation for your classmates:

<http://osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10051>

# 25 Environmental Situations and Injuries

1. Interview someone who has been struck by lightning or find a news article about someone who has been struck, prepare a summary, and print the story in the school newspaper.

2. Working with a local meteorologist, determine the number of days in the last year that could have caused a heat- or cold-related injury.

3. Design a severe-weather drill for athletes and coaches and create a poster to post in the athletic training room at your school.

4. Examine the NATA position statement on lightning safety for athletics and recreation and create a lightning-safe drill for athletes and coaches at your school:

Walsh, K.M, B. Bennett, M.A. Cooper, R.L. Holle, R. Kithil, and R.E. Lopez. 2000. NATA position statement: Lightning safety for athletics and recreation. Journal of Athletic Training 35(4): 471-477.

[www.nata.org/news-publications/pressroom/statements/position](https://www.nata.org/news-publications/pressroom/statements/position)

5. Examine the NATA position statement on exertional heat illness and write a report on a specific condition:

Binkley, H.M., J. Beckett, D.J. Casa, D.K. Kleiner, and P.E. Plummer. 2002. NATA position statement: Exertional heat illnesses. Journal of Athletic Training 37(3): 329-343.

[www.nata.org/news-publications/pressroom/statements/position](https://www.nata.org/news-publications/pressroom/statements/position)

# 26 Stabilization and Transportation of Injured Athletes

1. Using various tools, practice removing a helmet under the supervision of an athletic trainer. Make a chart of any problems encountered with each tool. Determine which tool is the easiest to use.
2. Read one of the following articles and write a one-page report to share with your classmates:

Del Rossi, G., M. Horodyski, and M.E. Powers. 2003. A comparison of spine-board transfer techniques and the effect of training on performance. Journal of Athletic Training 38(3): 204-208.

Gale, S., L. Decoster, and E. Swartz. 2008. The combined tool approach for face mask removal during on-field conditions. Journal of Athletic Training 43(1): 14-20.

Greenstein, J.S., and D.M. Kleiner. 2000. Guidelines for the prehospital management of the spine-injured athlete. Journal of Sports Chiropractic and Rehabilitation 14(4): 105-110, 134-135.

Luscombe, M.D., and J.L. Williams. 2003. Comparison of a long spinal board and vacuum mattress for spinal immobilization. Emergency Medicine Journal 20(5): 476-478.

Swartz, E., S. Norkus, T. Cappaert, and L. Decoster. 2005. Football equipment design affects face mask removal efficiency. American Journal of Sports Medicine 33(8): 1210-1219.

Tierney, R.T., C.G. Mattacola, M.R. Sitler, and C. Maldjian. 2002. Head position and football equipment influence cervical spine-cord space during immobilization. Journal of Athletic Training 37(2): 185-189.

1. Interview local EMS personnel. Determine the protocols used to remove an athlete by basic-level ambulance, advanced-level ambulance, and helicopter.
2. Compare and contrast the logroll technique versus the lift-and-slide technique for backboarding an athlete and present a report to your class.

# 27 Protective Taping and Wrapping

1. Examine the web for Kinesio Taping procedures and discuss the advantages and potential disadvantages of this technique. Compare it to the systematic review at this site [www.ncbi.nlm.nih.gov/pubmed/23306413](https://www.ncbi.nlm.nih.gov/pubmed/23306413).
2. Examine one of the following articles and write a brief report to discuss with your class:

Abián-Vicén, J., L. Alegre, J. Fernández-Rodríguez, and X. Aguado. 2009. Prophylactic ankle taping: Elastic versus inelastic taping. Foot and Ankle International 30(3): 218-225.

Bradley, T., C. Baldwick, D. Fischer, and G. Murrell, G. 2009. Effect of taping on the shoulders of Australian football players. British Journal of Sports Medicine 43(10): 735-738.

Delahunt, E., J. O’Driscoll, and K. Moran. 2009. Effects of taping and exercise on ankle joint movement in subjects with chronic ankle instability: A preliminary investigation. Archives of Physical Medicine and Rehabilitation 90(8): 1418-1422.

Gross, M.T., and H. Liu. 2003. The role of ankle bracing for prevention of ankle sprain injuries. Journal of Orthopaedic and Sports Physical Therapy 33(10): 572-577.

Meana, M., L.M. Alegre, J.L. Elvira, and X. Aguado. 2008. Kinematics of ankle taping after a training session. International Journal of Sports Medicine 29(1): 70-76.3.

Wilkerson, G.B. 2002. Biomechanical and neuromuscular effects of ankle taping and bracing. Journal of Athletic Training 37(4): 436-444.

1. Examine a taping technique on YouTube videos. Compare and contrast at least two videos of the same tape job to identify different techniques. Why are the same tape jobs not performed identically?
2. Visit this website for proper steps for using an ace wrap: [www.drugs.com/cg/how-to-use-an-ace-wrap.html](https://www.drugs.com/cg/how-to-use-an-ace-wrap.html).
3. Identify five of the most important tips for ace wrapping.
4. Select four different types of tape from an online catalog and prepare a poster presentation highlighting the purpose and the advantages and uses of each kind while including a picture of that tape as a graphic.

# 28 Protective Equipment Used in Athletics

1. If you could change the rules of a game, speculate what kinds of padding and equipment might be needed or eliminated as a result; include a rationale. An example might be playing football without tackling a person. Another example is a bike race limited to three-wheeled bikes.
2. Examine the information at the following websites and compare and contrast the helmets made by these companies:

[www.schuttsports.com/aspx/Sport/ProductListing.aspx?sp=3&id=89](http://www.schuttsports.com/aspx/Sport/ProductListing.aspx?sp=3&id=89)

[www.sportsdepot.com/footballhelmets.html](http://www.sportsdepot.com/footballhelmets.html)

[www.riddell.com/shop/on-field-equipment/helmets.html](http://www.riddell.com/shop/on-field-equipment/helmets.html)

1. Visit the Consumer Products Safety Commission website and learn about bicycle helmet use and bicycle safety overall at [www.cpsc.gov/s3fs-public/pdfs/344.pdf](https://www.cpsc.gov/s3fs-public/pdfs/344.pdf). Provide a summary of the major ways in which bicycle safety issues are enhanced with helmet use.
2. Examine one of the following articles and give a brief report:

Caswell, S.V., and R.G. Deivert. 2002. Lacrosse helmet designs and the effects of impact forces. Journal of Athletic Training 37(2): 164-171.

Chew, K., H. Lew, E. Date, and M. Fredericson. 2007. Current evidence and clinical applications of therapeutic knee braces. American Journal of Physical Medicine and Rehabilitation 86(8): 678-686.

Knapik, J., S. Marshall, R. Lee, S. Darakjy, S. Jones, T. Mitchener, et al. 2007. Mouthguards in sport activities: History, physical properties, and injury prevention effectiveness. Sports Medicine 37(2): 117-144.

Miller, M., D. Berry, G. Gariepy, and J. Tittler. 2006. Attitudes of high school ice hockey players toward mouthguard usage. Internet Journal of Allied Health Sciences and Practice 4(4).

Nicholls, R.L., B.C. Elliott, and K. Miller. 2004. Impact injuries in baseball: Prevalence, aetiology, and the role of equipment performance. Sports Medicine 34(1): 17-25.

Rodriguez, J.O., A.M. Lavina, and A. Agarwal. 2003. Prevention and treatment of common eye injuries in sports. American Family Physician 67(7): 1433-1435, 1481-1488, 1494-1496.

Ubell, M.L., J.P. Boylan, J.A. Ashton-Miller, and E.M. Wojtys. 2003. The effect of ankle braces on the prevention of dynamic forced ankle inversion. American Journal of Sports Medicine 31(6): 935-940.

1. Examine the NOCSAE website and learn about their recent activities:

<http://nocsae.org>

Create a poster highlighting one of the major initiatives to date.

1. Read the following text and write a report on a piece of athletic equipment:

Street, S.A., and D. Runkle. 2000. Athletic protective equipment: care, selection, and fitting. Boston: McGraw-Hill.

# 29 Basic Diagnostic Imaging and Testing

1. Visit a local medical center or hospital and look at the various equipment discussed in the chapter. Ask the technician to provide you with information about each piece of equipment.
2. Speak with a laboratory technician about the various results of a standard CBC blood test and then find an online resource that summarizes normal and abnormal findings and what they might indicate. Report to your class.
3. Meet with a radiologist who will share images from a variety of tests. Discuss the findings with him. If no radiologist is available, evaluate online resources to view a wide range of diagnostic test images and their results.
4. Visit [www.radiologyinfo.org/en/info.cfm?pg=dexa](https://www.radiologyinfo.org/en/info.cfm?pg=dexa) and review the process and results of a standard DEXA test. Prepare a brief presentation that highlights the key factors of this test and what it means for the patient who is found to be osteoporotic.
5. Compare and contrast the bone scan and the CT scan as diagnostic tools. Identify when one would be preferred over the other.
6. Prepare a patient information sheet to prepare a patient who is going to have an MRI performed. Keep the handout to one sheet with basic instructions for the patient to use.

# 30 Conditions and Illnesses

1. Make a poster about one of the conditions discussed in this chapter; include causes, prevention, and treatment of the condition and who is most likely to have it. Display the poster in the classroom.
2. Visit the following website and click on Diseases and Conditions to learn more about selected conditions discussed in this text: [www.mayoclinic.org/diseases-conditions](https://www.mayoclinic.org/diseases-conditions)
3. Examine one of the following articles and write a one-page report:

McGavock, J.M., N.D. Eves, S. Mandic, and N.M. Glenn. 2004. The role of exercise in the treatment of cardiovascular disease associated with type 2 diabetes mellitus. Sports Medicine 34(1): 27-48.

Mickleborough, T.D., and R.W. Gotshall. 2003. Dietary components with demonstrated effectiveness in decreasing the severity of exercise-induced asthma. Sports Medicine 33(9): 671-681.

Niedfeldt, M.W. 2001. Managing hypertension in athletes and physically active patients. American Family Physician 66(3): 445-452, 457-458.

Papanek, P.E. 2003. The female athlete triad: An emerging role for physical therapy. Journal of Orthopaedic and Sports Physical Therapy 33(10): 594-614.

Stopka, C. 2003. Disability and special needs. Athletic therapy for athletes with disabilities, part 2: Special conditions. Athletic Therapy Today 8(3): 23-25.

Storms, W.W. 2003. Review of exercise-induced asthma. Medicine and Science in Sports and Exercise 35(9): 1464-1470.

Vinci, D.M. 2002. Nutrition notes: Athletes and type 1 diabetes mellitus. Athletic Therapy Today 7(6): 48-49.

1. Visit the CDC website ([www.cdc.gov/diseasesconditions/index.html](https://www.cdc.gov/diseasesconditions/index.html)) for information related to the conditions and illnesses described in this chapter. Give a five-minute presentation to your peers.
2. Visit the website for the American Academy of Allergy, Asthma, and Immunology and access brochures related to allergens, pollen counts, and asthma: [www.aaaai.org/nab/index.cfm](http://www.aaaai.org/nab/index.cfm)
3. Visit the website for the American Diabetes Association to learn more about the disease:

[www.diabetes.org](http://www.diabetes.org)

1. Visit the website of the National Osteoporosis Foundation and examine various brochures related to bone health:

[www.nof.org](http://www.nof.org)

1. Prepare a poster presentation to give to your class on the causes of osteoporosis.

# 31 Communicable Diseases

1. Read one of the following articles and present a summary of the information to your classmates:

Adams, B.B. 2002. Dermatologic disorders of the athlete. Sports Medicine 32(5): 309-321.

Bechtel, M., A. Bechtel, and M. Zirwas. 2009. Skin infections in wrestlers and other athletes. Emergency Medicine 41(1): 25-29.

Dougherty, T.M. 2003. Physician perspective. Sports dermatology: What certified athletic trainers and therapists need to know. Athletic Therapy Today 8(3): 46-48.

Luke, A., and P. d’Hemecourt. 2007. Prevention of infectious diseases in athletes. Clinics in Sports Medicine 26(3): 321-344.

Midgley, A.W., L.R. McNaughton, and M. Sleap. 2003. Infection and the elite athlete: A review. Research in Sports Medicine 11(4): 235-259.

Velasquez, B.J. 2002. When is a skin rash more than just a rash? Sexually transmitted diseases: A dermatological perspective. Athletic Therapy Today 7(3): 16-23, 38-39, 64.

Weber, T.S. 2003. Environmental and infectious conditions in sports. Clinics in Sports Medicine 22(1): 181-196.

Winokur, R., and W. Dexter. 2004. Fungal infections and parasitic infestations in sports: Expedient identification and treatment. Physician and Sportsmedicine 32(10): 23.

1. Visit the CDC website at [www.cdc.gov](https://www.cdc.gov/) to review common communicable diseases and their sources for transmission. Create a chart that highlights at least five communicable diseases.
2. Identify online resources that discuss vaccinations and the role they play in the prevention of communicable diseases. Discuss the controversy regarding vaccination of children. Share your thoughts with your classmates.
3. Visit a local health care facility and review their communicable disease policy and procedures.
4. Prepare a brief presentation to share with coaches and teachers that emphasizes the role of education in the prevention of communicable diseases.

# 32 Common Drugs Used in Athletics

1. Attend an open meeting on substance abuse and write a report describing various experiences people have had with drugs. Discuss why some people choose not to use drugs and why people have stopped using them.
2. Interview a local dentist concerning the long-term effects of chewing tobacco and give a presentation to your peers.
3. Obtain brochures from the following web addresses. Design your own brochure, website, or podcast on one of the drugs discussed in this chapter.

[www.nida.nih.gov/scienceofaddiction/](http://www.nida.nih.gov/scienceofaddiction/)

[www.nida.nih.gov/MarijBroch/Marijteens.html](http://www.nida.nih.gov/MarijBroch/Marijteens.html)

1. Read one of the following articles and write a one-page report:

Beduschi, G. 2003. Current popular ergogenic aids used in sports: A critical review. Nutrition and Dietetics 60(2): 104-118.

Cooper, J., J.A. Ellison, and M.M. Walsh. 2003. Spit (smokeless)-tobacco use by baseball players entering the professional ranks. Journal of Athletic Training 38(2): 126-132.

Gaudard, A., E. Varlet-Marie, F. Bressolle, and M. Audran. 2003. Drugs for increasing oxygen transport and their potential use in doping: A review. Sports Medicine 33(3): 187-192.

1. Visit the website of the National Institute on Drug Abuse and learn more about drug testing in schools:

[www.drugabuse.gov/DrugPages/testingfaqs.html](http://www.drugabuse.gov/DrugPages/testingfaqs.html)

1. Visit the NIDA website to learn more about steroid use and prepare a poster to display in the athletic training room to discourage steroid use:

[www.drugabuse.gov/drugpages/steroids.html](http://www.drugabuse.gov/drugpages/steroids.html)

1. Examine the Illinois High School Association sports medicine link and find information about the state’s drug testing policy and list of banned drugs:
2. [www.ihsa.org/Resources/SportsMedicine/PerformanceEnhancingDrugsSteroidEducation.aspx](http://www.ihsa.org/Resources/SportsMedicine/PerformanceEnhancingDrugsSteroidEducation.aspx)

# 33 Nutrition and Weight Control

1. Using an online food tracker, keep a record of your eating habits during a normal day. Examine your record and answer the following: What types of food do you typically eat? What categories in the food pyramid are these foods from? What foods does your diet lack?
2. Read one of the following resources and write a one-page report:

American College of Sports Medicine (ACSM). 2009. Nutrition and athletic performance. Medicine and Science in Sports and Exercise 41(3): 709-733.

Beltrami, F., T. Hew-Butler, and T. Noakes. 2008. Drinking policies and exercise-associated hyponatraemia: Is anyone still promoting overdrinking? British Journal of Sports Medicine 42(10): 496-501.

Borrione, P., L. Grasso, F. Quaranta, and A. Parisi. 2009. FIMS position statement 2009: Vegetarian diet and athletes. International SportMed Journal 10(1): 53-60.

Cialdella-Kam, L., and M. Manore. 2009. Macronutrient needs of active individuals: An update. Nutrition Today 44(3): 104-111.

1. Find the food guidelines from another culture and compare them with figure 28.1. What are the biggest differences?
2. Describe the various types of vegetarianism and how vegetarians are able to fulfill their nutrient requirements without eating meat products.
3. Describe the role of fluid replacement drinks in the rehydration of athletes. Are they helpful? What are the precautions?
4. Review the NATA position statement on dietary supplements and prepare a brief summary to highlight the key elements.

# 34 Athletes With Disabilities or Disorders

1. Invent a game or change the rules of a game to accommodate an athlete with a disability. For example, wheelchair tennis: Athletes can only use one-half of the court.Another example would be ice hockey games played using the width of the ice rather than the length.
2. Using online research, compare and contrast a sport that is exclusive to athletes with disabilities and the changes in the various rules to accommodate them.
3. Compare the world records of athletes with and without disabilities in Paralympic versus Olympic competition. In what sports do you believed disabled athletes have the advantage? Explain your rationale.
4. Investigate athletic associations for groups of athletes who are not addressed in this chapter, such as athletes with kidney transplants, arthritis, and AIDS.
5. Visit the Disabled Sports USA website and learn more about the programs it offers:

[www.disabledsportsusa.org/](http://www.disabledsportsusa.org/)

1. Read the following article and discuss the related issues regarding the use of prostheses in Olympic races:

[www.scientificamerican.com/article/blade-runners-do-high-tech-prostheses-give-runners-an-unfair-advantage/](https://www.scientificamerican.com/article/blade-runners-do-high-tech-prostheses-give-runners-an-unfair-advantage/)