HEALTH RISKS
Associated with being a physical therapist or physical therapist assistant student

Being a health professional always carries with it a variety of risks associated with the transmission of disease from patients to health professionals. Physical therapists and physical therapist assistants experience additional risks associated with some of the physical modalities we use and related to the amount of lifting and patient handling that occur in a normal day. As a physical therapist (PT) or physical therapist assistant (PTA) student, you will be exposed to these risks (particularly during clinical education activities), as well as risks associated with receiving treatments by your classmates during laboratory sessions. The purpose of this article is threefold: (1) to inform you of these risks so that you may make an informed decision about continuing with your education, (2) to make you aware of what we will do to minimize these risks during your education, and (3) to make you aware of your responsibilities for minimizing these risks during and after your education.


PHYSICAL HAZARDS:

A. PTs and PTAs are at risk of injury, particularly back injury, related to transferring patients. To minimize this risk of injury, students learn proper body mechanics and lifting techniques during their first semester of enrollment. In addition, students learn lifts that involve more than one care giver and lifts with equipment to ensure that they have the tools to deal with patients who cannot be moved safely by one care giver. Personal responsibilities to minimize the risk of back injury include realistic estimation of one’s own lifting capacity, willingness to ask for and accept assistance when needed, and maintenance of a personal fitness level consistent with the lifting demands of the clinic. Students who believe that they should not administer a given treatment should notify the instructor.

B. PTs and PTAs may be at risk of physical assault from violent patients, for example, patients recovering from traumatic brain injury. Students learn a variety of behavior management techniques and strategies for dealing with patients who have the potential to be unpredictable. Personal responsibilities to minimize this risk include following facility guidelines for dealing with patients who have the potential to be unpredictable and notifying the clinical instructors if a patient’s behavior appears to be a potential threat to the safety of the student.

C. PT and PTA students may be at risk for a variety of physical hazards when they receive treatments during laboratory activities. Students learn contraindications and precautions for delivering treatments and should apply these to excuse themselves from receiving treatment when appropriate. Students who are uncertain of the
safety of a procedure they are about to receive should contact the instructor before receiving the treatment. Student risk of injury is minimized by restricting use of certain equipment to supervised classroom or laboratory sessions.

CHEMICAL HAZARDS:

A. The primary exposure to chemicals is in the hydrotherapy department. Students should follow facility procedures for handling and disposing of chemicals. Hazardous materials data sheets about the specific chemicals should be readily available for reference in each clinic.

B. PTs and PTAs may develop contact dermatitis from exposure to chemicals, particularly in response to repeated hand washing. Students who experience contact dermatitis should determine whether alternate soaps or lotions are available or should consult a dermatologist.

RADIATION HAZARDS:

A. The major radiation hazard to which PTs and PTAs are exposed is the radiation emitted from ultrasound, microwave and shortwave diathermy, infrared, and ultraviolet equipment. Information on this hazard is A sparse and inconclusive. One report has found an association between heart disease and exposure to shortwave diathermy for male physical therapists. Several studies have pointed to links between shortwave diathermy and birth defects. One study has found that exposure of operators of diathermy equipment rarely are exposed to higher than recommended levels. In addition, diathermy use in the United States is exceedingly low (71% of therapists in a 1987 study reported that they never used it). Students will learn safety precautions for the application of diathermy and other modalities. Students have the responsibility to follow these safety procedures when working with the modalities. Students who are pregnant should consult with their classroom or clinical instructors for guidance on the advisability of using equipment that may pose a potential radiation hazard.

INFECTIOUS DISEASES:

PTs and PTAs may be a risk for contracting a variety of viral, bacterial, and parasitic infections, including, but not limited to: HIV, hepatitis (A, B, non-A/non-B), rubella, measles, mumps, influenza, respiratory tract viruses, varicella, herpes simplex, cytomegalovirus, slow viruses, tuberculosis, meningococcal disease, salmonella, shigella, campylobacter, pertussis, staphylococcus aureus, streptococcus, legionnaires= disease, and scabies. The risk of infection is dependent on the particular clinical facility to which a student is assigned. In general, the following precautions should be used to minimize the risk of contracting these or any other infections:

A. Immunological barriers to the spread of infection should be used when possible. We minimize your risk of infectious disease by requiring documentation of immunity to
rubella, rubeola, tetanus, Tb, as well as the Hepatitis B vaccine (or your informed declination of this vaccine).

B. Hand washing is an important barrier to the spread of infection between patients and health care workers. You will receive instruction in basic hand washing techniques. It is then your responsibility to develop good hand washing practices in the clinical setting.

C. Universal standard precautions are to be used when handling blood and secretions. Students will receive instructions in the use of universal standard precautions as part of their academic and clinical training.

D. Isolation procedures that are specific to certain infections will be posted in inpatient settings. Students should adhere to these posted instructions. In addition, infection control issues will be covered in class when appropriate.

PSYCHOLOGICAL HAZARDS:

A. Attending an intensive, competitive educational program can be stressful. Students who are experiencing difficulty managing the stress of the program--or the intersection of their personal life and the program--are encouraged to seek assistance or referral from faculty members, counseling center personnel, or other personal support systems.

B. Working with ill or disabled patients may also be stressful, as is working in an industry that is dealing with pressures to be more accountable and cost-effective. PT and PTA students may have difficulty maintaining boundaries between their personal emotions and the professional role they should play. These sorts of issues will be dealt with in a variety of classroom settings. In addition, students are encouraged to discuss and resolve issues related to therapist-patient interaction with an appropriate faculty member or clinical supervisor.

SUMMARY:

Being a PT or PTA student carries with it risks related to physical hazards, chemical hazards, radiation hazards, infectious diseases, and psychological hazards. These risks can be controlled through the responsible application of procedures designed to minimize these risks. PT or PTA students are encouraged to consult with academic or clinical faculty members when they are concerned about the risk of working with a particular patient or procedure.