

COVID-19: Safety Considerations for Physical Therapists and Physical Therapist Assistants

This guide contains information regarding COVID-19 transmission and recommendations for infection control. Sources used in compiling this guide included the [Centers for Disease Control and Prevention \(CDC\)](#)¹, [National Institute for Occupational Safety and Health \(NIOSH\)](#),² [World Health Organization](#)³ and the [Occupational Safety and Health Administration \(OSHA\)](#).⁴ It is the physical therapist's responsibility to review local and state guidelines and, as the recommendations for management of COVID-19 are ever changing, be aware of the latest standards for infection control.

COVID-19: Modes of Transmission^{1,3}

- Current data suggest person-to-person transmission most commonly occurs during close exposure to a person infected with the COVID-19 virus, primarily via respiratory droplets produced when the infected person speaks, coughs, or sneezes.¹
- Droplets may land in the mouths, noses, or eyes of people nearby or may possibly be inhaled into the lungs of those within close proximity.¹
- Transmission also may occur through contact with contaminated surfaces followed by self-delivery or touching of the eyes, nose, or mouth.^{1,3}
- Airborne transmission from person-to-person over distances greater than 10 feet is unlikely.^{1,3}
- Unrecognized asymptomatic and pre-symptomatic infections likely contribute to transmission.
- The virus that causes COVID-19 has been found in the feces of some patients diagnosed with COVID-19. However, it is unclear whether the virus found in feces may be capable of causing COVID-19.¹

Standard and Transmission-Based Precautions

Standard Precautions^{5,6}

- [Standard Precautions](#) are the minimum infection prevention practices that apply to all patient care, regardless of suspected or confirmed COVID-19 status of the patient/client, in any setting where healthcare is delivered.^{5,6}
- Promote frequent and thorough [hand washing](#) with soap and water for at least 20 seconds. If soap and running water are not immediately available, wash with [Alcohol-Based Hand Rub \(ABHR\)](#) containing at least 60% alcohol.^{7,8}
- Standard precautions are based on a risk assessment and make use of common-sense practices and personal protective equipment (PPE) that protect healthcare providers from infection and prevent the spread of infection from patient to patient.^{1,6}
- Hand washing before and after all patient contact, contact with potentially infectious material, and before putting on and after removing PPE, including gloves are required as part of standard precautions.^{9,10}
- [Proper donning, use](#)⁹, and [doffing of PPE](#)¹⁰ to prevent self-contamination or contamination of other surfaces. Properly dispose of or disinfect and maintain PPE.

Transmission-Based Precautions^{1,10,11}

- [Transmission-Based Precautions](#) are used in addition to Standard Precautions and are specific to the transmission methods of the virus/infectious agent.¹⁰
- Contact, droplet, and airborne precautions are utilized to reduce the spread of COVID-19.
 - [Contact Precautions](#) refer to infection prevention strategies intended to prevent transmission of infectious agents spread by direct (handshake) or indirect contact (surfaces, clothing, pens, equipment.)^{1,10}
 - PPE Considerations for Contact Precautions^{1,10}
 - [Hand Hygiene](#): Wash hands when entering and exiting the environment.
 - [Gloves](#): Wear gloves whenever touching the patient's skin or surfaces/equipment in close proximity to the patient. Don gloves upon entry into the room. Change gloves if they become torn or contaminated.
 - [Gowns](#): Wear a gown whenever clothing may have direct contact with the patient or surfaces/equipment in close proximity to the patient. Don gown upon entry into the room.
 - [Droplet Precautions](#) refer to infection prevention strategies used when patients known or suspected to be infected with pathogens transmitted by respiratory droplets that are generated by coughing, sneezing, crying, or talking.¹⁵
 - PPE Considerations for Droplet Precautions^{1,10,11}
 - [Hand Hygiene](#): Wash hands when entering and exiting the environment.
 - [Gloves](#): Wear gloves whenever touching the patient's skin or surfaces/articles in close proximity to the patient. Don gloves upon entry into the room. Change gloves if they become torn or contaminated.
 - [Gowns](#): Wear a gown whenever clothing may have direct contact with the patient or surfaces/equipment in close proximity to the patient. Don gown upon entry into the room.
 - [Mask](#): Wear a surgical mask to completely cover the nose and mouth whenever entering a patient room or in the same environment as someone who requires Droplet precautions.
 - [Face Shield or Goggles](#): Wear goggles or a face shield to completely cover the eyes. This should be worn in addition to a surgical mask.
 - [Airborne Precautions](#) refer to infection prevention strategies used when patients known or suspected to be infected with pathogens are transmitted by airborne routes. Airborne precautions are typically required during aerosol generating procedures.^{1,10}
 - PPE Considerations for Airborne Precautions^{1,10}
 - [Hand Hygiene](#): Wash hands when entering and exiting the environment.
 - [Gloves](#): Wear gloves whenever touching the patient's skin or surfaces/articles in close proximity to the patient. Don gloves upon entry into the room. Change gloves if they become torn or contaminated.
 - [Gowns](#): Wear a gown whenever clothing may have direct contact with the patient or surfaces/equipment in close proximity to the patient. Don gown upon entry into the room.
 - [Mask](#): Wear an N95 surgical mask/ respirator that has been FIT TESTED to completely cover the nose and mouth whenever entering a patient room or in the same environment as someone who requires airborne precautions.
 - [Face Shield or Goggles](#): Wear goggles or a face shield to completely cover the eyes. This should be worn in addition to the N95 surgical mask.

COVID-19: Source Control^{1,13,14}

- [Source control](#) involves having the infected person wear a cloth face covering or facemask over their mouth and nose to contain their respiratory secretions, may help reduce the risk of transmission from people who are symptomatic or asymptomatic.^{1,13}
- Face coverings are recommended for all people over the age of two years.¹
- Face covering should [not be worn](#) by anyone having difficulty breathing, who is unconscious, or unable to remove the face covering without assistance.¹
- Practice social distancing, also known as physical distancing by maintaining at least six feet between yourself and others, and by avoiding crowds and groups of people.¹
- [Consider changes needed](#) in the physical layout of waiting rooms, gyms, or other shared spaces to maintain social/physical distancing.^{13,14}
- Encourage workers, clients, families and patients to stay home if they are sick. Encourage respiratory etiquette and use of face coverings

Other Infection Control Considerations ^{1,12,15,16}

- Maintain regular cleaning practices in addition to frequent cleaning and disinfecting of high touch surfaces, equipment, and other elements of the work environment as recommended by a facility and the CDC.^{12,15}
- Consult the [Environmental Protection Agency\(EPA\) list for recommended products](#).¹⁶
- Toys that cannot be cleaned and sanitized should not be used.^{8,12} Toys that have come in contact with bodily secretions should be set aside to be cleaned with water and detergent, rinsed, sanitized with an EPA-registered disinfectant, rinsed again, and air-dried.¹² Set aside toys that need to be cleaned and rotate toys through cleanings. Some toys may be machine or dishwasher washable.¹⁶
- Children's books and other paper-based materials such as mail or envelopes are not considered a high risk for transmission and do not need additional cleaning or disinfection procedures.¹²
- Consider engineering or environmental controls such as installing high-efficiency air filters, increasing ventilation rates in the work environment, and/or installing physical barriers, such as clear plastic sneeze guards.^{12,15}
- Use isolation rooms and extra protection when performing or present for aerosol-generating procedures.¹

COVID-19: Special Considerations for PPE Use^{1,2,3,4}

- Consider specific agency or system wide procedures in place to respond to level of community transmission, levels of PPE available, and procedures for re-use and disinfection of PPE following use.
- Consider activity/intervention being performed and corresponding OSHA risk level exposure anticipated.
- Ability of [persons with cognitive/intellectual disability](#) to wear a mask or face covering may be limited as well as therapist's ability to maintain physical distancing, requiring extra precautions.¹
- Those providing direct support and services or working in close proximity to clients unable to wear a face covering, need to take extra precautions by wearing an N95 mask, or if N95 masks are unavailable a surgical mask in combination with face shield/goggles.¹⁷
- Use structured teaching and caregiver coaching to support client's ability to wear and tolerate masks and face coverings. Consider use of social stories and video modeling.^{18,19,20}

- [Communication with client's who have a hearing impairment or other disabilities](#) can be made more difficult when communication partners are wearing masks and distancing.^{21,22} [Consider mask alternatives with clear plastic windows](#) that expose the mouth or a clear face shield that covers below the chin.^{21,22}
- Request guidance from local agencies with consideration for current COVID-19 status.

COVID-19: Assessment of Risk Exposure⁴

OSHA provides detailed information to determine [Risk Level Exposure](#) when providing physical therapy in different settings to assist employers and employees determine appropriate precautions.⁴ OSHA has divided job tasks into four risk exposure levels: very high, high, medium, and lower risk.⁴

OSHA Risk Level Exposure⁴

Risk Level	Very High	High	Medium	Lower
Description	High potential for exposure to known or suspected sources of COVID-19 during specific medical, postmortem, or laboratory procedures	High potential for exposure to known or suspected sources of COVID-19	Frequent and/or close contact with (i.e., within 6 feet of) people who may be infected with COVID-19	No required contact with (i.e., within 6 feet of) people who may be infected with COVID-19 or the general public.
Examples of Workers in this Category	Healthcare workers performing aerosol-generating procedures (e.g., intubation, cough induction procedures, bronchoscopies, some dental procedures and exams, or invasive specimen collection) on known or suspected COVID-19 patients	Healthcare delivery and support staff who must enter known or suspected COVID-19 patients' rooms	Areas without ongoing community transmission: workers may have frequent contact with travelers who return from international locations with widespread COVID-19 transmission. Areas with ongoing community transmission: workers may have contact with the general public (e.g., schools, high-population-density work environments, some high-volume retail settings).	Workers have minimal occupational contact with the public and other coworkers
Personal Protective Equipment (PPE)	Wear gloves, gown, face shield or goggles, and either a face mask or a respirator. Those who work closely with (either in contact with or within 6 feet of) patients known to be, or suspected of being, infected with COVID-19, should wear respirators.		Wear combination of gloves, gown, face mask, and/or face shield or goggles. PPE will vary by work task, results of employer's hazard assessment, and types of exposures on the job.	PPE is not usually indicated. Local regulations/ recommendations may require cloth face coverings.

It is important to be aware of these classifications as they are often used to guide therapists not working in health care facilities, such as early intervention, school-based, and outpatient clinic providers. For example, [some State Departments of Education](#) have classified providers assisting students with activities of daily living (ADLs) and other higher risk school

activities at the medium exposure risk level according to the OSHA risk levels.^{14,17} Staff are, therefore, guided to wear appropriate PPE based on their specific interactions with students (e.g. instruction, behavior support, support for ADLs, feeding). Given the different activities therapists engage in with their students, PPE use should be guided by both the activity and level of risk.

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Updated: August 13, 2020