Brief or New: Egress During Fire—Wheelchair Exiting in an Emergency

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Occupational therapists strive to foster independence in all aspects of the lives of disabled people. This has included not only activities of daily living (ADL), but also attempts to encourage the community to meet the needs of the disabled. With the effective lobbying and passage of the Rehabilitation Amendments of 1974 (P.L. 93-516), including Section 504 (1), many buildings have been made accessible to wheelchairs. Funding has been made available for the installation of electric doors, ramps, and elevators. More wheelchair-bound persons are now seen in public schools, on college campuses, and in multistory office and residential complexes. Increased accessibility has provided disabled people with the opportunity to live independently and conduct their daily lives without assistance.

Exits
Many buildings that are wheelchair-accessible are not, however, designed for emergency exiting. Because buildings are not equipped with a fast, safe, and reliable means of emergency exit for the disabled, and all wheelchair-bound persons are not knowledgeable in egressibility (the ability to exit), the task of independent training is not complete. We believe training in egress (exit) and survival must be part of the ADL training. This is necessary because laws on building egressibility neither exist, nor are there federal funds available to alter buildings for this purpose. Therefore, it is up to individuals to be responsible for their own safety.

Egressibility training begins with a basic checklist of items to be aware of in the multistory building. The primary concern is to locate and evaluate emergency exits. Elevators, the main tool for accessibility in the multistory building, usually do not operate in a fire situation. When smoke detectors are activated, the elevators go to a preprogrammed floor without completing the current floor assignment. Thus, a disabled person must be ready to deal with emergency egress without the benefit of elevators.

Multistory buildings are usually equipped with smoke towers, a stairway that is protected from smoke and fire by fire doors. Questions to raise are: Is there enough space for the wheelchair to pass through the doorway of the fire tower or stairwell? Is there enough space for the chair to be in the inside corner of the smoke tower and still allow people to pass? Will the door close with the wheelchair in the stairwell or is it blocked open? Once in the stairwell, the wheelchair would need to be carried out of the building; arrangements should be made with five coworkers or neighbors to assist the wheelchair person with exiting in case of fire. Five persons are needed to compensate for absences due to vacation, sick leave, and business travel.

Extinguishing Tools
In addition to knowledge of fire exits, egress training includes becoming aware of the fire extinguishing tools available in the building, which could be checked with the person in charge of building safety. Items to note include the method of alarm activation, and whether or not the building has a sprinkler system. Knowledge about other basic fixed firefighting appliances in the building equipment or design is valuable in determining how well the building is protected. These items include the standpipe, water gong, and pressure indicator valves.

The central fire department should be called for information on the location and phone number...
of the closest fire station that would respond in case of fire at home or the workplace. The appropriate fire station should also be contacted to make them aware of the presence of any disabled persons and any special emergency needs.

Handy Household Items
Following are other safety items that would be helpful in an office or residence in case of fire emergency. By attaching a car radio antenna to a small cigarette lighter with a wick, a disabled person can activate a sprinkler head or smoke alarm by placing the flame nearby. Activating a sprinkler discharges approximately 15 gallons of water per minute. The fog created by the water reduces the heat and clears the air of particle matter.

Seventy-five percent of fire deaths are caused by smoke inhalation. A disabled person can control smoke by using duct tape with the aid of a reacher or removable armrest to seal the edges of a door frame. This reduces the amount of smoke entering the room.

Figures 1 and 2 show simple measures that the disabled person can take during a fire. To breathe the fresher air near the floor without getting out of the wheelchair, a three-foot length of plastic tubing (surgical) can be used as an intake hose. As a last resort the person should get out of the chair to breathe the fresher air on the floor.

All of the items mentioned can easily be taken along when traveling. Using them, as well as caution concerning where one stays (such as the ground floor of a motel near an emergency exit), will make life safer and more secure for the disabled.

REFERENCES

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