Sharp devices such as needles, phlebotomy devices or scalpels present a risk of exposure to bloodborne pathogens like human immunodeficiency virus (HIV), hepatitis B, hepatitis C, among others. Careful disposal of sharp devices that have been contaminated with blood or body fluids is important for prevention of infection to healthcare workers, patients, and others in the healthcare environment.

OHS AH recommends that sharps disposal containers be located with consideration of the following factors:

- **Minimize accidental contact with sharps (e.g. needlesticks)** - A clear view of the opening is required to help workers dispose of sharps accurately, to view how full the container is, and to see if there are any sharps near or coming through the opening.

- **Infection control** - The surfaces of the sharps disposal container are potential sources of contamination from blood and body fluids, and contact with these surfaces should be avoided. The container opening should be easily accessed in order to minimize the possibility of accidental contact with the edges or surfaces of the container.

- **Minimize postural stress (musculoskeletal injury)** - Sharps disposal containers should be located so as to avoid excessive reaching or awkward postures. The container opening should be below shoulder height of the shortest employee, within forward reach when using a pinch grip, and unobstructed by any other equipment or furniture.

- **Minimize risk of accidental access** - Where young children or individuals with cognitive impairment may have access to the sharps disposal container, extra care needs to be taken to minimize the ease of access for these individuals while maintaining safe access for healthcare workers.

**Criteria**

The recommended maximum height\(^1\) for mounting a sharps disposal container on the wall for access while **standing** is: 125 cm (49.2") at the level of the sharps disposal container opening.

The maximum **horizontal reach**\(^2\) across a counter or other obstacle to a sharps disposal container is: 46 cm (18.1") to the centre of the container opening. As this reach limit is a maximum, the frequency of the container use should be considered to ensure optimal placement of containers.

The maximum recommended height\(^3\) for locating a sharps disposal container at a **seated workstation** is: 51 cm (20") above seat height at the level of the sharps disposal container opening.
Avoiding Accidental Access:

The recommended ‘maximum height’ for mounting a sharps disposal container (125 cm / 49.2”) is within the reach of a tall 4 year old child (133.5 cm / 52.6”). To minimize ease of access by children, wall mounted containers should be placed above a counter or other obstacle that can prevent a child from gaining access to the container, but that does not exceed the maximum recommended horizontal reach (46 cm / 18.1”).

Accidental access can also be prevented by careful placement of sharps disposal containers in areas not typically frequented by children or people with cognitive impairment.

Footnotes:

1. The maximum recommended height* for accessing a sharps disposal container while standing is below the maximum height that allows a 5th percentile female to view the container opening at a viewing angle of at least 15 degrees from horizontal (131.7 cm / 51.8”) and is based on the standing shoulder height of a 5th percentile female (122.5 cm / 48.2”) with a 2.5 cm (.98”) allowance for footwear.

2. The maximum recommended horizontal reach* is based on the static forward grip reach of a 5th percentile female, as estimated from the static forward grip reach (65.5 cm / 25.8” from scapula to thumb) minus abdominal depth (19.5 cm / 7.7”). The resulting horizontal reach corresponds to the ‘infrequent use’ horizontal reach envelope in CSA Z412-00.

3. The maximum recommended height* for a sharps disposal container via seated access is based on the seated shoulder height of a 5th percentile female (51 cm / 21” from seat pan to shoulder), which will vary in total height depending on the height of the chair.

Helpful Hints with respect to using sharps disposal containers...

1. When selecting sharps disposal containers, ensure the container openings allow for easy disposal of all sharp devices used in the work area (i.e. needles, butterflies, IV catheters, and scalpels).

2. Ensure that the disposal containers are located at “point-of-use”, including patient bed sides.

3. Have a procedure in place that ensures regular replacement of sharps containers in order to prevent overfilling.

4. Ensure that the sharps disposal containers are not obstructed with carts or other equipment.

* Height and reach data represent 5th percentile female from the British adult population between the ages of 19 and 45. Pheasant, S. Bodyspace: Anthropometry, ergonomics, and the design of work. 2nd ed. Taylor & Francis; 1997.