Canes
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A previous issue of Elder Care discussed the use of walkers as an ambulation aid. This issue will discuss canes, which are used by one in ten older adults.

Canes are primarily used to improve balance and stability. Although some types of canes can be used for limited weight bearing, individuals whose ambulation requires major weight-bearing support generally need to use a walker or hemi-walker.

Two-thirds of patients who use a cane obtain it on their own, without any professional guidance about the proper type or sizing of the cane, or even about whether a cane is the appropriate walking aid for their needs. Even fewer, about one in five, receive proper education on how to use their cane.

The three main types of canes are standard canes, offset canes, and multiple-legged canes. Each has variations, plus advantages and disadvantages.

Standard Canes
A standard cane, also called a single-point cane (Figure 1), is usually made of wood or aluminum, and is the most widely used type of cane. Its main purpose is to improve balance by widening an individual’s base of support. Standard canes are not appropriate for individuals who need assistance with weight-bearing (i.e., who need to lean heavily on the cane because they can’t bear weight on their legs). Aluminum canes typically have an adjustable length, so perfect fitting before purchase is not always critical. Aluminum canes are also available as a “folding” cane that can be collapsed for compact storage when traveling (Figure 2).

In contrast to aluminum canes, wooden canes are lightweight and inexpensive. But, they have a fixed length and thus require proper fitting prior to purchase.

Offset Canes
Offset canes (Figure 3) are similar to standard canes except the shape positions the patient’s weight over the axis of the cane. This allows the cane to be used for occasional weight bearing. Offset canes are often recommended for patients who have arthritis in the hip or knee and occasionally need to decrease the weight borne on a painful lower extremity.

Multiple-Legged Canes
Multiple-legged canes typically have four, though sometimes three, short legs attached to a rectangular base at the lower end of the cane’s shaft. Depending on the number of legs, they are referred to as quadripod or “quad” canes, or tripod or “tri” canes (Figure 4).

Because they have multiple legs, these canes provide more support than standard or offset canes and are capable of bearing more of a patient’s weight. They can be used by patients who have an antalgic gait due to osteoarthritis and by patients with hemiplegia.

TIPS FOR RECOMMENDING CANES
- Recommend standard canes when there is need for assistance with balance, but not weight bearing.
- Recommend an offset cane for patients who require occasional limited weight bearing support.
- Recommend a multiple-legged cane for patients who require more substantial weight bearing support.
- Proper fit: when arm dangling at side cane should reach wrist crease; when holding cane handle, elbow flexed ~20°
- Be sure the patient receives proper instruction on how to use the cane.
In addition to weight bearing, another advantage of a quad cane is that it can stand upright by itself when not in use. This frees the patient’s hands to do other things until they need to resume walking, and the cane can be retrieved without the need to bend down. In addition, a modification known as a “sit-to-stand cane” combines the stability of a multi-legged base with a bent handle that can be gripped at two levels (Figure 5). This allows the patient to put weight on the cane via the lower part of the handle when rising from a sitting position.

Despite these advantages, quad and tri canes are sometimes challenging to use. The principal challenge arises from the fact that for proper use, all the legs should strike the ground simultaneously, particularly if the device is to be used for weight bearing. This requirement is sometimes awkward, particularly for individuals with a relatively rapid gait.

The solution to this challenge in some cases is to change from a quad cane to a tri cane, or to change the multi-legged bottom to a smaller size in which the legs are closer together. The faster an individual walks, the fewer legs and the closer together the legs can be, though the trade off is some loss of stability during weight bearing.

**Fitting and Using a Cane**

Two key considerations in fitting a cane are elbow flexion and cane length. The elbow should be flexed at about 20 degrees when the tip of the cane is positioned on the floor, about 6 inches from the lateral edge of the toes. A proper cane length is the distance from the floor to the crease of the wrist when the patient’s arm is dangling loosely at the patient’s side.

**References and Resources**

American Geriatrics Society. Health in Aging. Choosing the right cane or walker. 


Silva J. How to use a cane. (Video from CaregiversTraining.com). https://www.youtube.com/watch?v=fRn8ZZJMzno


**ACOVE Quality Indicators**

1. All vulnerable elders should have documentation that they were asked about or examined for the presence of balance or gait disturbances at least once.
2. If a vulnerable elder reports or is found to have new or worsening difficulty with ambulation, balance, or mobility, THEN there should be documentation that a basic gait, mobility, and balance evaluation was performed within 6 months that resulted in specific diagnostic and therapeutic recommendations.
3. If a vulnerable elder demonstrates decreased balance or proprioception, or increased postural sway, THEN an appropriate exercise program should be offered and an evaluation for an assistive device performed.