

Chairs  
designed to

**Prevent Falls**  
**Reduce Injuries**  
**Increase Dignity**

JANUARY 2024

Several years ago I attended a workshop highlighting “**patient centered care**” initiatives when caring for seniors, including care for persons living with Alzheimer’s. My take aways were as follows:

1. Front line staff are encouraged to “take time” to develop and maintain a relationship bond with persons in their care.
2. When chatting with residents, staff are reminder never to surprise or approach them from behind as many are not able to clearly comprehend verbal instructions.
3. Memory care communities are encouraged to use bold colors within the environment to differentiate pieces of furniture from other surroundings.

***In response staff replied, “Take time?” “What time?” “There is no time!”*** Staff are already expected to provide mealtime assistance within a set period-of-time. They are also required to be the ‘muscle’ when assisting a seated up-to the table.

And so, while we value the merits of positive engagement between staff and residents, challenges associated with the performance of mealtime activities routinely prevent staff from making relationships their primary focus.

#### **So, what does this have to do with chairs?**

Based upon six years of field research within senior living communities, I believe today’s dining chairs fail care staff (and residents) simply because chairs have never been designed to move (Read more, see tab #3).

ComforTek’s designs include mobility features enabling chairs to **swivel...roll...** and **brake** for safety! With these features in place care staff are able to focus their efforts on caring for seniors in a calm and respectful manner.

While the goal of our designs was to reduce the physical demands of caregivers (pushing-pulling-shoving-twisting), seniors also experienced an increased sense of dignity and self-worth!

Thanks again for taking time to review this information. Thanks also for everything you do for today’s seniors!



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 **ComforTek**

To view executive highlights, please see highlighted areas.

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# Why dining chairs fail **CARE STAFF**

The journey of aging robs many from living healthy independent lives. Daily challenges associated with ongoing health conditions, injuries, medical diagnosis, surgeries or aging reduces one's mobility it prevents many of us from scooting up-to the table to work on a family puzzle or enjoy a meal with family and friends.

Front line staff are the first to feel the impact of reduced mobility among clients/residents as they are charged with providing whatever effort is required to move a seated person up-to the table.

Today's furniture technology fails as many designs date back some 4600 years to chairs that feature four legs, a seat, and back, and arms.



Circa 2600 BC

## Simply stated...

Dining chairs fail caregivers because

- chairs are not designed to MOVE

Dining chairs fail care staff because

- chairs do not reduce the physical demands of care staff providing mealtime assistance

## Therefore...

Care staff are expected to exert considerable physical effort (push / pull / shove / twist) each time meal assistance is provided.



- ✘ Care staff are at increased risk of incurring a work place injury
- ✘ Care staff cannot enjoy a healthier work environment when the physical demands associated with providing mealtime assistance are not reduced
- ✘ Residents are at increased risk of falling / tripping as they get seated at mealtimes
- ✘ Residents are less compliant and less willing to follow care staff directives...often creating a combative, less enjoyable mealtime routine!

## Designing Better Care...

While caregivers are expected to assist a seated person to and from the table, the reality is that this task is almost impossible as care staff lack the physical strength required for effective assistance and softer flooring causes chairs to become 'stuck' to the floor. Care communities would be well served to identify a mechanical means that enables caregivers to perform this task with reduced physical effort.

### Design question...

How does a caregiver move a seated person up to the table with ease and grace and without the risk of incurring a work-related injury?

### A better way...

Chairs designed for care staff should include mobility features that enable chairs to **swivel...roll...and brake** for safety!

These features eliminate the need for care staff to push / pull / shove / twist when providing mealtime assistance.

### As a result...



- ✓ Care staff are at reduced risk of incurring a work place injury
- ✓ Care staff enjoy a healthier work environment when the physical demands associated with providing mealtime assistance is reduced
- ✓ Residents are at reduced risk of falling / tripping as they get seated at mealtimes
- ✓ Residents are more compliant and more willing to follow care staff directives... creating a more enjoyable mealtime routine!

→  See: 'Outcomes'

**Design Challenge:** Our design challenge was NOT to design a chair that rolls easily. These chairs already exist in the form of a task chair or a 1970's dinette chair. The use of these chairs is considered unsafe as they can move unexpectedly and prematurely.

Rather, the design challenge was to incorporate mobility features which balance the need to:

- a. move a seated person up-to the table with ease and grace,
- b. reduce the physical demands placed upon caregivers,
- c. provide the seated person with an increased sense of dignity and self-worth,
- d. **...and to do so, without compromising safety for either the seated person or the caregiver.**

**To Learn More...**For seniors living with reduced mobility, these features enable a care provider to offer assistance without risk of injury to themselves.



[www.comfortek.com/t2-healthcare](http://www.comfortek.com/t2-healthcare)  
[www.comfortek.com/better](http://www.comfortek.com/better)



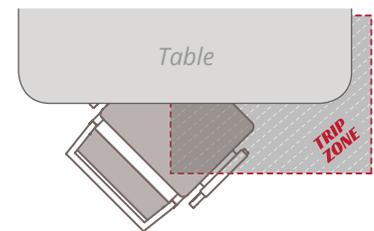
**Consider the Following:** The Need for Controlled Mobility

Care staff experience first-hand, a senior's changing ability to move about independently, as they are charged with providing **'whatever physical effort is required'** when assisting a seated person to the table.

The "trip zone", is the area around the table in which there could be as many as 13 contact points\* any of which can be bumped into or tripped over while care staff is assisting a person at mealtimes.

The likelihood of a fall/trip occurring within the "trip zone" increases the closer the person being assisted gets to the table. One missed step by either person will result in a disastrous conclusion to the "table dance" routine.

The "trip zone" exists because care staff position the chair as close to the table as possible. They do this knowing once the person is seated they are expected to provide the muscle in order for the seated person to be positioned suitably at the table.

**Minimizing the effects of the trip zone**

**When chairs roll...**the person remains standing away from the table supported by their walker/rollator. Once the chair is rolled up behind them and the care staff invites them to sit down. The person being seated is at minimal risk of falling.



**When chairs swivel...**the seat of the chair is turned to face away from the table. The person remains standing supported by their walker/rollator. The care staff provides verbal cues (acting as a coach) guiding the person to take a few steps towards the chair. Once aligned with the seat of the chair the person releases hold of the walker and reaches for the arms of the chair for support and sits down. Once seated, the seat of the chair is turned to face the table.

- X** Currently, the only option available to care communities are wheelchairs or dining chairs with active front casters. Seniors resent wheelchairs often referring to them as 'one appliance before the gurney'.
- X** Dining chairs with front casters contribute significantly to damaged floors and structural weakness of chairs as care staff routinely twist the chair by pulling on one arm in order for the seated person to exit the table.



\*13 Contact Points: 4 legs of the chair, 4 wheels of the walker, 2 feet of person being assisted, 2 or more feet of caregivers, 1 Table top and potentially a table leg).

# HOW CHAIRS THAT SWIVEL...ROLL ELIMINATE TABLE INTERFERENCE



**NO  
Mobility**

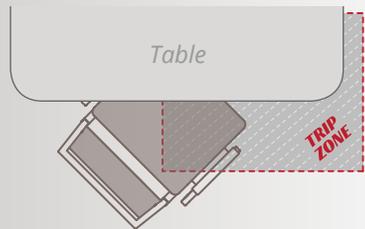


Table Interference  
/ Fall Risk:

**HIGH** ↑



SEAT: **Swivels**  
**Locks - 90°**

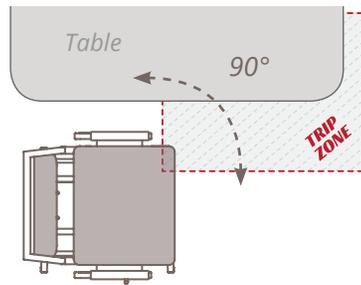


Table Interference  
/ Fall Risk:

**LOW** ↓



SEAT: **Swivels**  
**Locks - 90°**

CHAIR: **Rolls (Inline)**  
**Brakes**

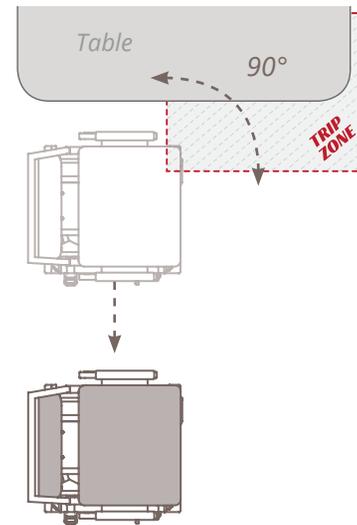


Table Interference  
/ Fall Risk:

**LOW** ↓



CHAIR: **Rolls (360°)**  
**Brakes**

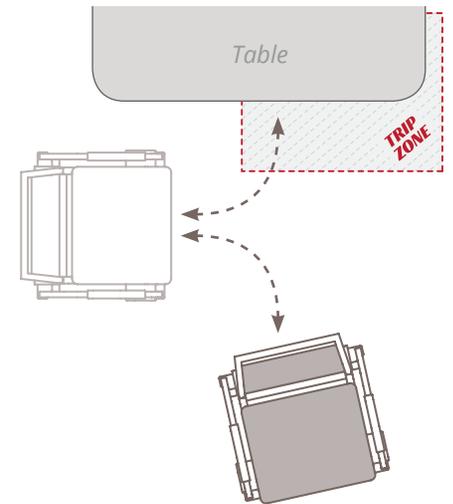


Table Interference  
/ Fall Risk:

**LOW** ↓