

The Chair CADDIE: A seating innovation for today's senior care communities; designed to prevent falls and reduce the physical demands of **care staff**...at mealtime

Section 1:

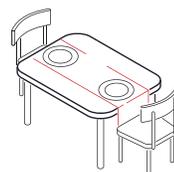
Why Chair Fail Care Staff / Outcomes

Section 2:

Minimizing the Effect of the Trip Zone

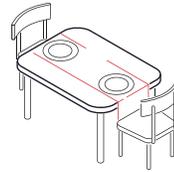
Section 3:

How to Begin / Testimonials



Section 1

The Chair **CADDIE**: A seating innovation for today's senior care communities; designed to prevent falls and reduce the physical demands of **care staff**...at mealtime



The dining room is the heart of every senior care community.
It is where we are nourished. It is where we gather.

It is good for the body, mind and soul. It is a public space, open to all.
It is at the dining table, where inter-general relationships
are fostered and cherished.

The dynamics associated with aging, the loss of mobility and caregiving are complex and involved.

Seniors living with reduced mobility experience an overwhelming sense of being a burden or a nuisance. Often these once proud individuals will be seen sitting in awkward places for no reason other than they did not want to inconvenience anyone more than absolutely necessary.

Care staff endure a sense of helplessness as often they lack the physical strength to move a seated person to a place of greater comfort and enjoyment

When moving a seated person, **care staff** feel more like hired muscle than givers-of-care as today's furniture technology fails to reduce the physical demands associated with providing meal time assistance.

Something has shifted in the expectation senior care communities have of furniture as it relates to providing person centered care.

Prior to Covid, the design of dining tables and chairs focused primarily on augmenting a particular narrative for a senior care community. Much of the attention was drawn to fabrics and finishes. Flooring surfaces also tied into the narrative, with innovations addressing the seriousness of fall prevention, leading to softer more pliable surfaces being introduced.

Now, post Covid, senior care communities are asking, “what / how does your furniture make the task of front line care staff easier?”. This requires a different response from designers and manufacturers as the needs of care staff are now front and center.

Caring for those who care: ComforTek’s design team started by asking, care staff “What features would you like to see in a chair?”

Care staff were quick to identify the physical toll of providing care, and the challenge of maintaining a relationship with a seated resident while providing meal time assistance. In most cases, meal time assistance involved plenty of *pushing-pulling-shoving-twisting* on the back of a chair simply to get a person seated at the table.

→  See: ‘Why dining chairs fail CARE STAFF’

While **care staff** were quick to welcome these innovations, what we had not anticipated was the impact to other departments and budgets when mobility features were included on dining furniture.

In the white paper, ComforTek seeks to validate the extent to which these mobility features:

1. Enhance the quality of life for today’s seniors,
2. Ease the physical burden of **care staff**, and
3. Contribute to the financial viability of each senior care community

→  See: ‘Outcomes’



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.



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www.comfortek.com/better





OUTCOMES...

Senior care communities incorporating controlled mobility (**Swivel...Roll**) features onto dining room furniture identified the following:

ADMINISTRATION / MAINTENANCE

- ✓ Reduced capital expenses
 1. Chairs remain in service 4-7 years longer
 2. Damage to floors is eliminated
 3. All existing damaged chairs can be brought back into circulation
- ✓ Increased occupancy (families/visitors see the increased level of resident centered care provided in the dining room)
- ✓ Staff appreciate management pro-actively addressing workplace safety

HUMAN RESOURCES

- ✓ Increased staff retention (reduced physical demands of care staff)
- ✓ Increased recruitment (attracts early retirees looking to become re-engaged in the care community)
- ✓ Reduced absenteeism (less injuries/fatigue to front-line staff)
- ✓ Reduced staffing costs (overtime and workers' compensation claims)



CAREGIVERS

- ✓ Reduced physical effort while performing daily tasks of moving residents up-to and away from tables
- ✓ Reduced workplace injuries
- ✓ Soft skills (ie. compassion, empathy, tolerance) become more evident as physical fatigue diminishes
- ✓ Better **work / life balance** as front-line staff tasked with moving seated individuals up-to and away-from tables have more energy at the end of a shift

RESIDENTS

- ✓ Increased dignity
- ✓ Increased engagement/interaction with staff
- ✓ Enhanced relationships with care providers
- ✓ Increased safety when being seated

FAMILIES

- ✓ Increased level of service satisfaction
- ✓ Increased level of confidence in staff



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Chair Caddie



FROM THE FIELD - SENIOR CARE COMMUNITIES...



Enhancing Mobility and Efficiency

Recently, a Chair Caddie from ComforTek Seating was purchased by a facility to test its compatibility with one of their existing dining chairs. Over the course of approximately six weeks, the Caddie had been utilized with various residents and staff members, several advantages for the residents, staff, and the facility as a whole became apparent.

The staff members were pleased to discover that the Caddie functioned smoothly in the dining room and even rolled effortlessly on the carpeted surface in the multipurpose room. Consequently, relocating seated residents to a table required minimal effort. From the perspective of the facility administrator, the Chair Caddie has significantly simplified the task of assisting residents when being seated. One notable benefit is the secure attachment of the Caddie to the chair, which eliminated concerns about the chair accidentally dislodging from the Caddie.

Additionally, it became evident that the Caddie reduced the daily wear and tear on their chairs, ultimately reducing the need for annual replacements. Also, the floors of the facility required less maintenance and repair as the frequency of chair movement was reduced, which can typically cause damage.



Increased Occupancy & Revenue

A care home administrator shared the following. “Daily, his community receives tour requests from families searching for a new home for their parent(s). Typically these tour requests occur around mealtimes.

To demonstrate the “level of care” his community provides, a complete set of chairs with mobility features was placed into the dining room. Specifically, he did not want staff to push...pull...shove...twist when assisting a seated person up-to the table.

His rationale, “by demonstrating a high level of patient centred care for each resident in the dining room (even for residents with limited mobility) family members can expect that same level of care to be shown throughout the community.”



Dignity and Respect

A care home called to reorder chairs for their dining room. In 2017 they placed a set of chairs which included “mobility features” into their dining room.

They went on to share with us, “Prior to receiving these chairs in 2017, they documented 5-8 incidents/month where a seated resident would “strike” or “lash out” at the caregiver who was assisting them up-to the table. Interestingly, since the Titan Series “mobility chairs” arrived (2017) they have not had another documented case of this occurring.”

Their takeaway, dining chairs fitted with “mobility features”, enable care staff to focus on developing a relationship with residents, as opposed to approaching them from behind only to surprise/aggravate them further by pushing-pulling-shoving-twisting on the back of their chair each time meal assistance was provided.”



FROM THE FIELD - HOMECARE...



Bringing Families Together Again

I wish I had found this chairs sooner than I did. My husband suffers from Parkinson's, and this chair has broken the physical barriers I was having with getting him to the table. It is important for us to sit together.

Now I can get him to the dinner table with ease. And that's all that matters. Thank you for bringing us back together at mealtimes.



Keeping Loved Ones at Home Longer

I have been struggling pushing my husband in and out of the dining table since he became disabled a year ago. When I saw the Chair Caddie, I knew it was something that would not only help my husband but myself also.

The struggle is over, and I want to say this chair has been a lifesaver. I recommend the Chair Caddie to anyone who is dealing with the same issues I have. I love the new chair and it will help with keeping my husband at home where I can care for him.



Improving Dining Accessibility

My wife has had a traumatic brain injury. She can walk using assistance (rollator) but cannot move herself up-to or away-from a table. Using the dining furniture at home was a struggle for me and our visiting caregiver.

We attempted to reduce the friction between the floor and the chair by adding felt pads to the bottom of the chair legs, even tried the "tennis ball" solution. After cracking one of the dining chairs, I started looking online for chairs with wheels.

I did not want an "odd ball" chair at the table and the visiting caregiver indicated that, a "familiar" chair would be less confusing for my wife. I found ComforTek and was intrigued with the features of the Chair Caddie. With the Chair Caddie installed, I can easily move my wife up to and away from the table and we kept a consistent look of dining chairs around the table.



Life-Altering Chair for Parkison's Care

This chair has been a lifesaver. My husband has progressive Parkinson's disease and needs 24-hour assistance. We could not find a chair that would fit his needs. An office chair with wheels was not an option because it flew off whenever he was rising or sitting down.

To turn a regular chair away from the table, it had to be lifted with him in it. With the stiffness caused by his illness, he could not help, thus the chair was dragged and quite a number of chairs got broken (along with the floor being damaged.) After days of online research, I came across your chair. It has been life-altering.

I have recommended this chair to so many people who are afflicted the same way he is.

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Section 2

The Trip Zone

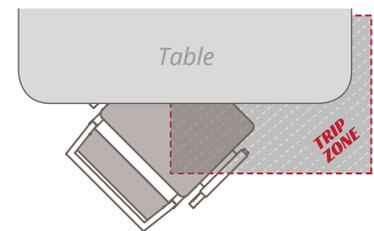
Consider the Following: The Need for Controlled Mobility

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 DOES A PERSON GET SEATED AT THE TABLE...

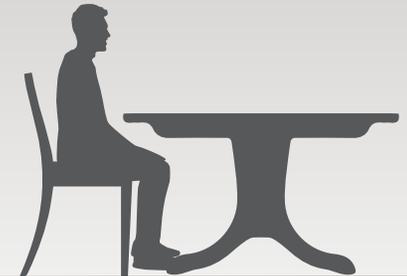


**POSITIONS
CHAIR**

**GETS
SEATED**

**LIFTS
CHAIR
SLIGHTLY**

**SCOOTs
FORWARD**



...REQUIRES NO ASSISTANCE



CARE STAFF

**POSITIONS
CHAIR**

CARE STAFF

**ASSISTS IN
GETTING SEATED**

CARE STAFF

**PUSHES - SHOVS - TWISTS
TO MOVE SEATED PERSON FORWARD**



...REQUIRES ASSISTANCE EACH TIME THEY ARE SEATED AT THE TABLE

HOW MUCH PHYSICAL EFFORT CAN CARE STAFF EXERT SAFELY?

(LIFTING - PUSHING - PULLING)

A person can safely LIFT 35 lbs. under normal conditions (no sudden moves or twisting)
A person can safely PUSH up to 20% of their body weight and PULL up to 30% of their body weight.

** Silverstone Group*

	LIFT ↑	PUSH →	PULL ←
140 lbs. CARE STAFF	35 lbs.	28 lbs.	42 lbs.
200 lbs. CARE STAFF	35 lbs.	40 lbs.	60 lbs.

**CARE STAFF RISK INCURRING A WORK-RELATED INJURY
EACH TIME MEAL ASSISTANCE IS PROVIDED.**

HOW CHAIRS THAT SWIVEL...ROLL ELIMINATE TABLE INTERFERENCE



**NO
Mobility**

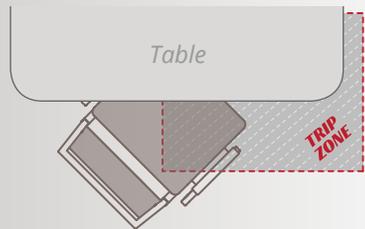


Table Interference
/ Fall Risk:

HIGH ⬆️



SEAT: Swivels
Locks - 90°

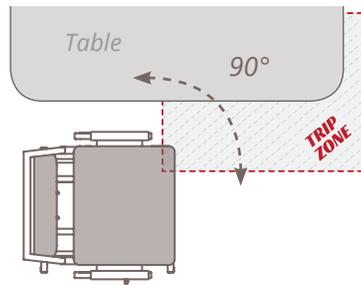


Table Interference
/ Fall Risk:

LOW ⬇️



SEAT: Swivels
Locks - 90°

CHAIR: Rolls (Inline)
Brakes

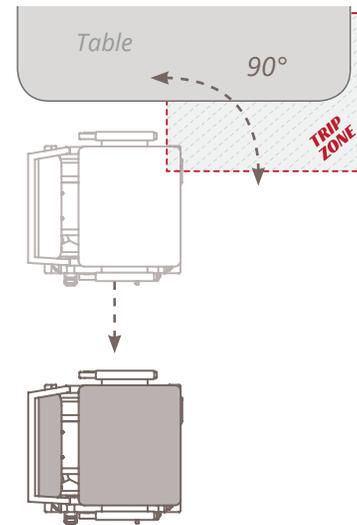


Table Interference
/ Fall Risk:

LOW ⬇️



CHAIR: Rolls (360°)
Brakes

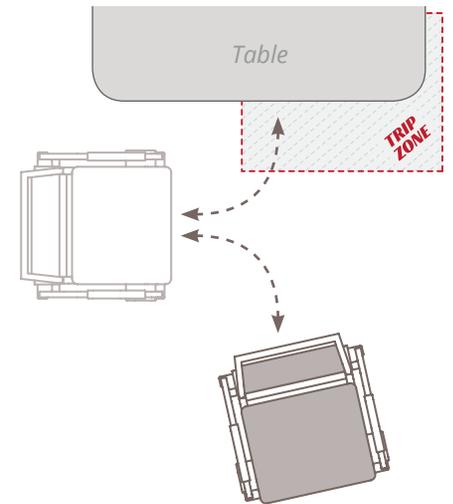


Table Interference
/ Fall Risk:

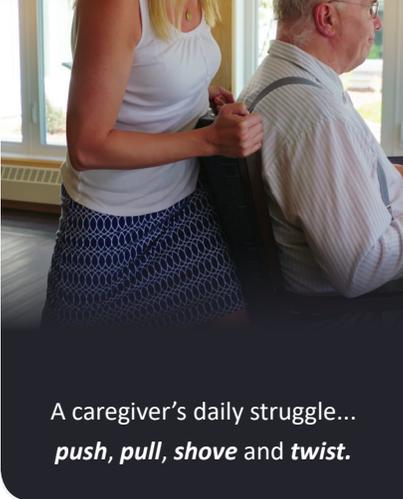
LOW ⬇️

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Section 3

How to Begin

→ TO BEGIN:



Next time you visit the dining room, find out which residents pose the greatest challenge to care staff:

- 1 Residents using walkers / rollators when coming to the dining room
- 2 Residents over 300 lbs. and require assistance from care staff
- 3 Residents who have difficulty comprehending verbal instructions and appear agitated with care staff
- 4 Residents with cognitive motor skills challenges such as **dementia, Parkinson's or arthritis**

Find out from maintenance personnel:

- 1 How many chairs are structurally unsafe and in need of reinforcement?
- 2 How many chairs have already been taken out of circulation?
- 3 Are floors currently showing excess wear from skidding chairs? When was the last time floors were replaced?

→ THE NEXT STEP:

Attach Chair Caddies to several existing chairs. Listen for feedback from care staff, residents and family.



Chair *Caddie*
RETRO-FIT

- 1. Attaches to **YOUR** existing chairs (wood or metal)
- 2. Low profile design – chair is raised ¾" above the floor
- 3. Fits inside the footprint of an existing chair
- 4. Anti-tip glides
- 5. Foot activated locking rear caster
- 6. Rated for 450 lbs.
- 7. Attaches to arm or armless chairs



The Chair Caddy eliminates *pushing, pulling, shoving,* and *twisting*.

Additional
Mobility Options



Swivel-Lock



Swivel-Lock / Roll



Roll / Brake



Roll / Brake
(Attachable to YOUR chair)



Roll / Brake
(Bariatric)



Lift / Extend
(Individually)



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Taste and See

ComforTek has prepared a sample pack of chairs suitable for mobility testing in your senior community.

The sample pack is provided at no cost to the care community to 'Taste & See' the impact of mobility chairs in your community.

Please contact Ed Sandau / Karla Carcamo to see if your community qualifies for our testing program.

Ed Sandau

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How **MOBILITY CHAIRS** Work



A



Retrofit - attaches to **YOUR** chair

B



Caregiver Controlled
(By Default...Always Locked)

C



Operator Controlled
(Hand Brake / Foot Propelled)

D



Caregiver Controlled
(Seat Swivels...Chair Rolls)

A RETROFIT w/ CADDIE CCB

- The chair turns 360° degrees - **'Booty Flip'**
- Allows the caregiver to bring the chair to the person requiring assistance
- Foot brakes attached to rear casters

Attaches to **YOUR** chair



Chair Caddie CCB

B ARMED CHAIR w/ CADDIE CC1

- The chair is always locked until caregiver depresses the hand brake release
- The chair turns 360° degrees - **'Booty Flip'**
- Allows the caregiver to bring the chair to the person requiring assistance
- Multiple brake options (hand release / foot brake)

By Default...Always Locked



T2-22"-CC1

C ARMED CHAIR w/ CADDIE CC2

- The chair turns 360° degrees - **'Booty Flip'**
- A person is able to sit, release the brakes and foot propel themselves up-to and away-from the table
- Multiple brake options available (hand / foot brakes)

Operator Controlled



T2-22"-CC2

D SWIVEL ARMED CHAIR w/ CADDIE CC5

- The seat swivels 90° degrees and locks automatically
- Eliminates table interference
- The chair can be pulled away from the table providing additional clearance
- The chair rolls forward and backward (inline)
- Foot brakes attached to rear casters

Caregiver Controlled



T2-SWL-22"-CC5