Why dining chairs **FAIL** today's seniors, caregivers, and persons with reduced mobility

The journey of aging robs many seniors from living healthy, independent lives. Challenges associated with aging, ongoing health issues, injuries, or surgeries reduce mobility and prevent many from doing even the simple things in life, such as scooting up to a table to enjoy a meal with family or friends. "I just didn't expect meal times to be so difficult," is muttered by seniors waiting to receive assistance from their spouse or family member.

Simply stated…

Today's dining chairs are outdated because

- they are not designed to MOVE
- they do not reduce the physical demands of the caregiver

As a result, caregivers (the person behind the chair) experience fatigue and risk personal injury each time they provide mealtime assistance.

Therefore…

Dining chairs designed for seniors and caregivers should include features that enable chairs to ***SWIVEL…TURN…ROLL…*****and *BRAKE* for safety!**

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

Consider the following…

1. **Traditional chairs are not designed to move.** Traditional, four-legged dining chairs rely on friction (between the legs of the chair and the floor) to remain upright and stable. Thus, any force applied to move a chair (push/pull/shove/twist) with a seated person damages a chair's structural integrity.

2. **Cushioned flooring further increases resistance when attempting to move a seated person.** While cushioned flooring is credited with minimizing serious injury should a fall occur, indentations formed under each chair leg make it almost impossible for a caregiver to move a chair with someone sitting in it.

3. **Seniors with limited mobility require help getting up-to and away-from the table.** The process of getting a person seated at a table involves a series of steps most people take for granted. For those with limited mobility, these steps often require assistance from others.

4. **Today's seniors are caring for seniors. In many homes, the person providing assistance is also a senior.** As such, they are at greater risk of incurring injury due to diminished physical strength and muscle coordination.

5. **Safety guidelines indicate a person can safely lift no more than 35 lbs.** Any attempt to move a seated person of any size is unsafe and increases the risk of injuring oneself.

6. **The ability for a couple to age in place depends on one spouse to remain fully mobile.** Dining chairs which reduce the physical demands of the caring spouse prolong the couple's ability to age-in-place.

7. **Many seniors perceive the wheelchair to be one appliance before the gurney.** While the wheelchair is designed for necessary movement, seniors dislike the stigma associated with its use. They want to maintain as much normalcy as they can.

Today…

Turns…Rolls…
***Brakes** for safety.*

Dining Chairs designed to swivel…turn….roll…and brake for safety:

- ✓ Prevent injuries to caregivers and family members
- ✓ Eliminate the need to push / pull / shove / twist when moving a seated person up-to the table
- ✓ Reduce stress and anxiety for both the seated person and the caregiver
- ✓ Create a more enjoyable mealtime routine!

To Learn More…

For seniors living with reduced mobility, these features enable a family caregiver to offer assistance without risk of injury to themselves.

www.comfortek.com/video

Daily mealtime challenges experienced by caregivers include:

- Assisting persons with limited mobility get seated and moved up-to and away-from the table
- Assisting larger persons (300+ lbs.) get seated and moved up-to and away-from the table
- Assisting persons relying on a rollator/wheelchair for stability, transfer into a dining chair and then get moved up-to and away-from the table
- Providing dignity to persons requiring feeding assistance while they are seated in different styles of geri-chairs
- Providing assistance to persons who are no longer capable of understanding verbal instructions (Alzheimer's, Dementia) get seated and moved up-to and away-from the table
- Providing assistance to persons with impaired motor skills (Parkinson's) get seated and moved up-to and away-from the table

....and finally, providing care without incurring a personal injury.

While it is expected caregivers will assist a seated person up-to and away-from the table, the reality is this task is almost impossible as caregivers lack the physical strength required to provide assistance. Care communities would be well served to identify a mechanical means that enable caregivers to perform these tasks with grace and ease.

Design Question: How does a person living with reduced mobility get moved up-to and away-from the table?

Design Challenge: Our 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. These chairs are 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.

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HOW MUCH PHYSICAL EFFORT CAN A CAREGIVER SAFELY EXERT?

(LIFTING – PUSHING – PULLING)

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

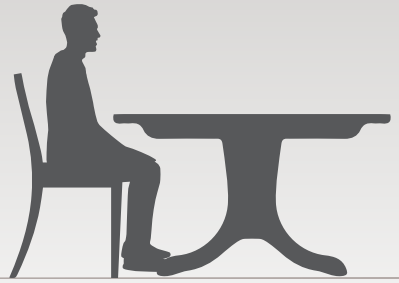
** Silverstone Group*

	LIFT	PUSH	PULL
140 lbs. CAREGIVER	35 lbs.	28 lbs.	42 lbs.
200 lbs. CAREGIVER	35 lbs.	40 lbs.	60 lbs.

ESSENTIALLY...
A CAREGIVER RISKS INCURRING AN INJURY
EACH TIME ASSISTANCE IS PROVIDED.

HOW DOES A PERSON GET SEATED AT THE TABLE...

POSITIONS CHAIR → GETS SEATED → LIFTS CHAIR SLIGHTLY → SCOOTS FORWARD



AN **ABLE-BODIED** *PERSON...*

REQUIRES NO ASSISTANCE

CAREGIVER	CAREGIVER	CAREGIVER
POSITIONS CHAIR	ASSISTS IN GETTING SEATED	PUSHES - SHOVES - TWISTS TO MOVE SEATED PERSON FORWARD

A **MOBILITY-CHALLENGED** *PERSON...*

REQUIRES A CAREGIVER'S ASSISTANCE TO GET SEATED AT THE TABLE

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TO GET **SEATED**...

ONCE **SEATED**...

CARE STAFF ASSIST THE PERSON INTO CHAIR

NO Mobility

With NO mobility features, a caregiver is required to **PUSH** - **PULL** - **SHOVE** - **TWIST** the seated person up-to and away-from the table.

Risk of injury / fall: **HIGH**

CARE STAFF ASSIST THE PERSON INTO CHAIR

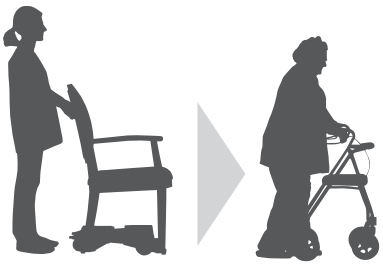
Turns...
Brakes

With mobility, the seat of the chair **TURNS**...**BRAKES**.

Care staff can easily position the seated person at the table.

Risk of injury / fall: **LOW**

CARE STAFF MOVE THE CHAIR TO PERSON



Turns...Rolls...
Brakes

With added mobility, the chair is **MOVED** to the person.

Once seated, care staff **ROLL** the seated person up-to the table with ease and grace.

Risk of injury / fall: **LOW**

HOW CHAIRS THAT *TURN…ROLL…* ELIMINATE TABLE INTERFERENCE

NO Mobility

CHAIR: ***Turns***
Brakes

CHAIR: ***Turns*** *(360°)*
Rolls
Brakes