

Caffeine

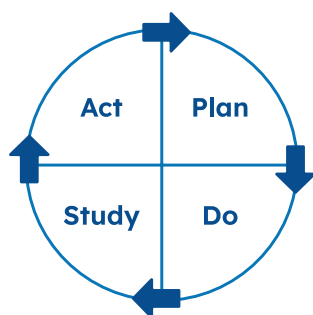
How does it affect your residents?

Find out more about how too much caffeine impacted residents at Marmora Care Home, Essex.

Introduction:

Marmora Care Home primarily support residents with a dementia diagnosis. Marmora adopts a person-centred approach to care for their residents, ensuring that residents' access meaningful activities and their individual needs are met.

Marmora are active members of the Provider Quality Innovation team's PROSPER project (www.essexproviderhub.org/quality/quality-innovation-team/prosper/prosper). They utilise quality improvement methodology (pic.1) to better their understanding of their residents needs and how best to support them. During a visit as part of a wider project involving PROSPER, the home manager and deputy manager discussed with the Innovation Teams Senior Occupational Therapist a particular resident prone to falls (Resident A).



Pic. 1 - Quality Improvement methodology - PDSA cycle

Resident A:

Resident A was described as being active and more cognitively aware in the mornings until mid-afternoon. From mid-afternoon onwards she became anxious, muddled, seeking reassurance from staff, and was getting up and down a lot. Resident A experienced several falls, from March 2021 – September 2021 she fell a total of 14 times. Generalised falls prevention measures were implemented however these did not impact significantly on Resident A.

The manager and deputy manager described Resident A's meaningful activities as listening to music, dancing, and enjoying a cup of tea. They advised she was most settled when having a cup of tea and would often be provided with one to reduce her agitation, reporting that this could be several times in the day (as much as 15).

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Plan: Individualised intervention for Resident A to reduce level of falls and anxiety.

Effects of caffeine:

According to Smith and Writer (2017, updated 2024), caffeine can cause –

- increased anxiety
- agitation
- trouble sleeping
- restlessness
- dizziness
- increased heart rate
- nausea
- diarrhoea
- changes in mood

Recommended daily caffeine intake:

According to Williams (2023), the recommended moderate daily caffeine intake is a dose level of

up to 400mg/day
(for a 65kg person)

This equals approx.

4 cups of coffee

depending on the size of your mug.

How big is your cup:

Typically, a mug holds approximately 235–300ml (Lacoste 2023), whereas an average cup and saucer holds around 150ml (Kwan, no date).



How much caffeine is in my drink/snack?*



1 mug filter coffee (200ml)
100mg caffeine



1 mug of tea (200ml)
45mg caffeine



1 can of energy drink (250ml)
80mg caffeine



Can of cola (330ml)
35mg caffeine



1 mug of instant coffee (200ml)
60mg caffeine



Small bar of chocolate (50g)
5-36mg caffeine

* All figures are approximate. Information sourced from: www.bbcgoodfood.com/howto/guide/spotlight-caffeine

Recommendation from Senior Occupational Therapist for Resident A:

1. Reducing caffeine intake to a maximum of 5-6 cups of tea per day and (following a Mental Capacity Act assessment) replace any other cups of tea with non-caffeine equivalent, particularly at night times
2. Relaxation music in the afternoons/night-time for calming benefits
3. Breathing exercises at night-time before bed
4. Encouraging strength and balance activity in the mornings

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Do: Implement recommendations

3

Study: Observed impact on Resident A

During the 6 months post implementation, (October 2021 – March 2022) Resident A fell just 4 times. This equates to a **71% overall reduction** in falls for resident A. The manager and deputy manager also noted that:

- there was a huge improvement in her sleep.
- there was a massive reduction in her anxiety level's
- she was not seeking as much reassurance from staff
- there was a reduction in her toilet related falls*

* A recent study by Care England and Stow Healthcare, in partnership with University Hospitals of Leicester NHS Trust (2024), 'Decaffeination and falls prevention', has also evidenced the links between caffeine and toilet related falls.

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Act: Extending their learning

Marmora also decreased Resident A's teacup size thus reducing her high fluid intake, which reduced her need to urinate as frequently but still enabled her to enjoy several cups of (decaffeinated) tea.

Marmora have implemented their learning for other residents. **Resident B** was often wide awake from the early hours of the morning (3am) for the day. Introducing decaffeinated drinks from mid-day onwards meant he would often sleep until 6-7am, increasing his overall amount of sleep. This had a positive impact on his energy, mood and reduced his falls.

You can find more information about Marmora's 'Positive effects of decaffeinated drinks' in the Prosper Newsletter; edition 82 (January 2022) www.essexproviderhub.org/quality/quality-innovation-team/quality-team-newsletters

References:

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