



Irish Society of  
Chartered  
Physiotherapists  
The Voice of Physiotherapy in Ireland

# Guide for treating community dwelling older people post COVID-19 Isolation (“Cocooning”)

**June 2020**

CPNG Guide for treating community dwelling older people post COVID-19 Isolation (“Cocooning”)

## Introduction

People aged 70 years and older have been particularly affected by COVID-19. This population segment is indeed very vulnerable, especially under stressful situations that challenge body functional reserve. Older people present the greatest risk of mortality for COVID-19 (odds ratio per year increase of 1.10, 95% confidence interval 1.03 to 1.17) (Zhou et al, 2020) and therefore require strict protection measures against the infection. In March 2020, the Irish government advised people over the age of 70 to “cocoon”, limiting all contact with people and eliminating/limiting all activity outside of their homes. While seeking to protect older people, prompting them to stay home might further increase sedentary behavior, a situation that is likely to contribute to aggravating sarcopenia, frailty, and age-related functional decline, and to increase the risk of all-cause mortality (Dogra et al, 2017). It also may have untold effects on mental health, social isolation and loneliness.

This resource has been developed by the CPNG on behalf of the ISCP for physiotherapists looking to support their patients to be active and self-manage long term conditions during this very challenging period where access to face-to-face healthcare is extremely limited. This may form part of remote management for a specific condition or as general wellbeing advice.

### Disclaimer:

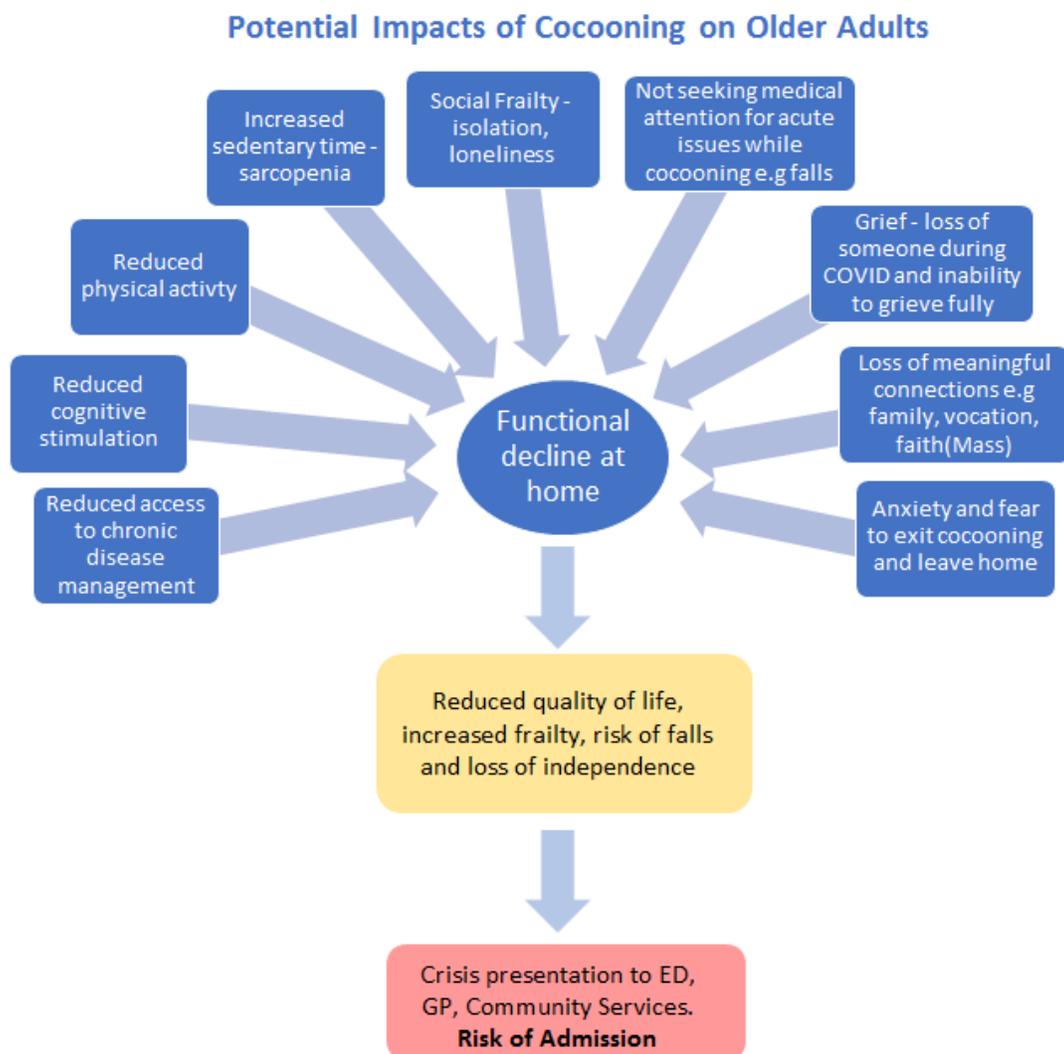
This guide has been developed for reference and guidance by the Irish Society of Chartered Physiotherapists' (ISCP) Clinical Interest Group in Neurology and Gerontology (CPNG). It is based on the available evidence on May 10th 2020. It is expected that all physiotherapists using this document will work within their scope of practice in line with local policies, procedures and guidelines.

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## Potential Effects of COVID-19 Isolation “Cocooning”

This is an unprecedented situation and thus there is little research in the area of cocooning. The long term effects of the COVID-19 cocooning on deconditioning, social isolation and frailty are unknown. This may have untold effects on the health of older people in the community who do not contract COVID-19. Refer to the diagram below, designed to show the potential impacts of the COVID-19 isolation phase on older people. The potential impacts of cocooning on older people are summarised below.



## Physical Function

During the initial phases of cocooning, older people in Ireland were asked not to mobilise/exercise outdoors and limit all non-essential travel outside their home. This restriction will have had an effect on many older people's physical activity and in turn impact on deconditioning, sarcopenia and overall levels of frailty.

Numerous studies looking at complete bed rest have shown its deleterious effects on muscle mass, power and overall function. Dirks et al (2016) subjected 10 healthy males to 1 week of strict bed rest. The results included a 3.2% reduction in quadriceps cross-sectional area (CSA) and a 7% reduction in quadriceps strength, as measured by 1 repetition maximum (RM). A review by Saumur et al (2020) found that bed rest had a negative effect in the majority of balance control measures. With 14-60 days sufficient to elicit balance deficits. Ten days of bed rest suffices to result in marked impairments in walking speed, and functional ability among individuals aged about 70 years (Coker et al, 2015). The incidence of functional decline during hospitalization has been inversely associated with physical activity (Pavon et al, 2020). Approximately one-third of older people lose their ability to independently perform one or more activities of daily living (ADLs) from hospital admission to discharge (Lloyd et al, 2020), which has important short and midterm consequences including a higher risk of nursing home admission, hospital admission, and mortality (Covinsky et al, 2011).

These studies provide a stark insight into the effects of bed rest and hospitalisation on muscle mass, balance and physical function. It is important to note while older people may remain somewhat active in regard to ADLs while at home, they will undoubtedly have experienced reduced physical activity and the absence of structured exercise due to the restrictions on groups and outdoor exercise. These more subtle changes impact on physical function in a variety of ways including reduced physical activity and increased sedentary time. A study by Breen et al. (2013) demonstrated that reducing walking to less than 1500 steps per day for 14 days resulted in an average loss of around 4% of fat free lower limb mass, but with some participants losing 9-15%. Prolonged periods of sedentary time are associated with reduced muscle strength (Hamer et al, 2013), muscle power (Chastin et al, 2012), functional performance (McDermot et al, 2011, Santos et al, 2012) and disability in activities of daily living (Dunlop et al, 2014). A cross-sectional study by

Gianoudis et al, 2014, found in community dwelling older people  $\geq 60$  years that for each 1-hour increment in overall daily sitting time, there was a 33% increased risk in having sarcopenia.

## Cognition

Community dwelling older people living with mild cognitive impairment and dementia are vulnerable to the physical and mental impacts of cocooning. The WHO underlines that people with mild cognitive impairment or mild dementia may face a greater challenge during the outbreak (WHO, 2020). Cocooning may lead to social isolation which increases the risk of dementia and cognitive decline in older people. Non-attendance at face to face activities such as memory workshops, cognitive stimulation therapy and day care services may worsen the cognition and function of this population (Brack et al, 2012). Reduced access to support may also increase caregiver burden (Wang et al, 2020). Alzheimer Europe has developed a list of resources for carers.

<https://www.alzheimer-europe.org/Living-with-dementia/COVID-19>

## Social Isolation

The Irish Longitudinal Study of Ageing (TILDA) has reported that 60% of older people (over the age of 70) enjoy regular social and leisure activities (McGarrigle et al, 2020). Cocooning has had a significant impact on social roles, social networks and overall social activity of older people. Social activities require higher levels of functioning. Changes in the ability to engage with these activities have been referred to as 'social frailty' (Teo et al, 2017). Studies have demonstrated that low levels of social activity, low participation in social roles and poor social relationships have a negative impact on physical and cognitive function (Kuiper et al, 2017, Buchman et al, 2009, Buchman et al, 2010 and Zunzunegui et al, 2003). Loneliness is associated with a more rapid motor decline in older age (Buchman et al, 2010). Social frailty leads to the development of physical frailty among older people who had not previously been regarded as not physically frail (Makizako et al, 2018). Cocooning is effectively an induced state of reduced activity, participation and ability to engage in social roles. For older people who are not already adept in the use of the internet/social media, this could contribute to further

isolation/loneliness. Cocooning could potentially lead to an increase in not just social frailty in the older person but accelerate the development of frailty in previously robust individuals.

### Mental health

Currently, very little is known about the broader impact of COVID-19 on mental health. This may include the distinct mental health impact related to the fatality risks from COVID-19, stress around behaviours that may lead to contact/infection (including contact with caregivers), consequences from social distancing and cocooning. Retrospective studies of the 2003 SARS epidemic found that rates of suicide among older people spiked during the period of the epidemic (Yip et al, 2010). This highlights the urgency for understanding the mental health impact of COVID-19.

### Physical Activity Guidelines

Regular physical activity contributes to the key determinants of healthy ageing: good physical and mental function; opportunities for social interaction; a sense of control over and responsibility for one's own health and well-being and managing or coping with disease symptoms and functional limitations (WHO, 1998, WHO, 2015).

There is strong evidence that physical activity contributes to increased physical function, reduced impairment, independent living, and improved quality of life in both healthy and frail older people. Physical activity in later life can help treat and offset the symptoms of a range of chronic conditions (e.g. depression, CVD, Parkinson's disease). (CMO, 2019)

### Physical activity guidelines for Older People (65 years and over)

The UK Chief Medical Officers have issued the following Physical Activity Guidelines

- Older people should participate in daily physical activity to gain health benefits, including maintenance of good physical and mental health, wellbeing, and social functioning. Some physical activity is better than none: even light activity brings some health benefits compared to being sedentary, while more daily physical activity provides greater health and social benefits.

- Older people should maintain or improve their physical function by undertaking activities aimed at improving or maintaining muscle strength, balance and flexibility on at least two days a week. These could be combined with sessions involving moderate aerobic activity or could be additional sessions aimed specifically at these components of fitness.
- Each week older people should aim to accumulate at least 150 minutes of moderate intensity aerobic activity, building up gradually from current levels. Those who are already regularly active can achieve these benefits through 75 minutes of vigorous intensity activity, or a combination of moderate and vigorous activity, to achieve greater benefits. Weight-bearing activities which create an impact through the body help to maintain bone health.
- Older people should break up prolonged periods of being sedentary with light activity when physically possible, or at least with standing, as this has distinct health benefits for older people.

<https://www.gov.uk/government/publications/physical-activity-guidelines-uk-chief-medical-officers-report>

### Supporting Older People to stay active during Cocooning

There are many online resources available, but for many older people these may not be appropriate. The WCPT, ISCP and CSP have identified resources that include a variety of general activity advice and condition-specific self-management support. Physiotherapists should select the most appropriate resources for your patients according to your clinical and risk assessments. These may include:

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Self-isolation/social distancing advice for your specific patient

Assessment findings including balance, falls risk, cardiovascular compromise etc.

Current rehabilitation needs and co-morbidities

Current level of physical activity and subsequent target intensity of exercise

Ability to understand the information contained within the resources you select

The level and type of support you are able to give e.g., planned follow ups, printed resources

How you are delivering your remote consultation e.g. phone or video

You and your patients' access to technology/hardware e.g. printer

Patient preferences and goals

Environmental risk assessment (self-reported or observed on video)

## Home Based Resources for Cocooning Older People

### Siel Bleu

Siel Blue Ireland <https://www.facebook.com/SielBleulreland/> Facebook live at 11am and YouTube for Care homes at 2pm

### Age and Opportunity

<https://m.facebook.com/AgeandOpportunity/> See page for dates and time

### Make Movement your Mission

<https://www.facebook.com/groups/138533120904126/> Daily from Mon 23rd March at 8am, 12pm, 4pm

### WCPT Resources

More resources available here:

<https://www.wcpt.org/sites/wcpt.org/files/files/resources/IPTOP%20resources%20for%20exercise%20and%20physical%20activity.pdf>

### TILDA “Stay Safe, Stay Home”

The TILDA document for community based support services for older people at home during COVID-19 is reproduced below.

# “Stay Safe, Stay Home”

## Community supports for those at home in the Covid-19 crisis

As people are encouraged to “Stay Safe, Stay Home”, to prevent the spread of COVID-19, and as greater numbers enter self-isolation while waiting for testing or results of tests, a number of community and voluntary organisations are offering new or expanded services nationally in response to the COVID-19 crisis. You may find the numbers below helpful if you are seeking advice, and particularly if you or loved ones are self-isolating.

### ALONE

ALONE has set up a dedicated COVID-19 support line, in collaboration with the HSE and Department of Health, to offer advice and information related to the coronavirus.

**ALONE COVID-19 support line (Monday to Friday, 8am-8pm): 0818 222 024.**

### Age Action

The Age Action Information Service is available Monday to Friday, 9.30am – 5pm, for people who want to talk through the HSE COVID-19 guidelines.

**Age Action Information Service: 01 4756989.**

### Covid Community Response

Covid Community Response (<https://covidcommunityresponse.ie/>) is a national support helpline for individuals and organisations seeking assistance from their local community during the COVID-19 pandemic. It is staffed by volunteers who assist people directly or through community organisations locally. You can text or call the numbers below to request help, for example with delivering groceries, and the helpline will arrange assistance through available volunteers.

**Covid Community Response: TEXT: 086 180 0256 or CALL: 021 237 7809.**

### Family Carers Ireland

Family Carers Ireland has expanded its National Freephone Careline service in response to the increase in calls directly related to COVID-19. The Careline offers advice and will answer carers’ specific queries. They have also called for donation of personal protective equipment such as sanitiser or masks for family carers, and will arrange delivery if supplies are available.

**Family Carers Ireland Careline: 1800 24 07 24.**

The **Health Service Executive** (HSE) also has its own helpline, which you can call Monday to Friday: 8am - 8pm, and Saturday and Sunday 9am – 5pm.

**HSE Live Helpline: Callsave: 1850 24 1850 Phone: 041 6850300.**

## Supporting Older People to return to activity/social participation post Cocooning

Due to the restrictions of cocooning, older people have not been able to access the traditional means of maintaining physical activity and social participation such as; family visits, outdoor mobility, public transport use, shopping and community groups. This may lead to an increase in overall deconditioning and compound the effects of sarcopenia and frailty in older people who were already frail/pre-frail. Older people may report feeling weaker and more unsteady on their feet. They also may report reduced confidence and increased fear of falls.

Furthermore, due to the unknowns of the future, older people may experience more fear and anxiety on returning to social participation and previous levels of activity. Exploring worry and anxiety amidst the effects of COVID-19 with older people is important in assisting them returning to social participation.

Our current models of care for managing older people in the community will have to adapt (in accordance with social distancing guidelines) to support older people exiting from cocooning. There will also be a need to identify those who may be at greater risk of not returning to their previous activity levels and those who have not accessed health services during cocooning due to fear of Covid-19. Physiotherapists screening and managing older people returning to social participation should ask the following questions:

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Do you have any problems with walking or balance?

Have you become much less active during cocooning?

Do you feel as if you have lost confidence during this time?

Do you have an underlying health condition that affects your ability to participate in physical activity?

Do you have any worries about returning to previous social participation?

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### Graded return to activity

For some older people emerging from cocooning whose function is declining due to low levels of activity and who may have lost muscle strength but otherwise remain reasonably well, a graded return to activity is recommended: ‘Walk for a minute and rest for a minute’ may be a useful strategy for older people to manage fatigue, particularly while building up gradually towards the guideline level for moderate-intensity activity. The inclusion of strength and balance activities may be particularly useful to increase confidence and stability. Sit-to-stands, stair climbing, and home-based strength and balance exercises can all contribute to stability.

These activities can also build people’s confidence to move safely on to activities that improve aerobic activity, such as brisk walking exercise classes and online classes to improve strength and balance once appropriate social distancing measures are in place.

### Frailer Older People

Frailer older people are those identified as being frail or have very low physical or cognitive function, perhaps because of chronic disease such as arthritis or dementia. Any increase in the volume and frequency of light activities, and any reduction in sedentary behaviour, is a good place to start and contributes to better health. For this group, activities that are more strenuous are less likely to be feasible. A programme of activities could focus instead on reducing sedentary behaviour and engaging in regular sit to-stand exercise and short walks, stair climbing (Donath et al, 2014), embedding strength and balance activities into everyday life tasks (Sherrington et al, 2017) and increasing the duration of walking, rather than concentrating on intensity.

### Social participation, worry and anxiety

While the Irish Government has provided a road map for returning to social and economic activity, older people may experience worry and anxiety about returning to activities of daily living (ADLs), social participation and physical activity. This resource has been developed by clinical psychologists to help people manage worry and anxiety during COVID-19. [Living with worry and anxiety amidst global uncertainty](#)

## e-Health

As e-Health/remote care becomes a more mainstream aspect of physiotherapy intervention in response to COVID-19, the CPNG recommends that physiotherapists consider developing a local standard operating procedure and policy for their workplace.

The Chartered Society of Physiotherapists (CSP) has recently published “COVID-19: Guide for rapid implementation of remote consultations” which has excellent practical tips from CSP physiotherapists as well as advice from the CSP. It is available here: [COVID-19: guide for rapid implementation of remote consultations](#)

Please see the “Guide for treating older people post COVID-19 in hospital, post-acute care and the community” CPNG document for more information on e-Health with older people.

## Conclusion

Older people have been severely impacted by COVID-19 and particularly the effects of cocooning. They may experience changes to physical and mental wellbeing and in those most vulnerable cocooning may accelerate frailty. Physiotherapists have a crucial role in the identification and management of those most affected by cocooning by working closely with multidisciplinary teams across all forms of care, particularly in the community. The limitations of social distancing, infection control measures and reduced “face-to-face” contact will require physiotherapists to modify their approach and interventions. This document should be read in conjunction with local policies and guidelines in relation to infection control and patient care. An integrated and collaborative approach between physiotherapists and healthcare professionals will provide the older person with the best opportunity to maintain independence at home.

## Acknowledgements

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