ACC Community Strength & Balance Evidence Based Criteria

PREVENTION. CARE. RECOVERY.
Te Kaporeihana Äwhina Hunga Whara

A guide for Lead Agencies and Instructors - May 2024

Introduction

Community Strength & Balance (CSB) classes are exercise programmes that aim to improve the balance and leg strength of older adults to reduce their risk of falling. Falls are a major cause of injury and disability among older people, affecting their independence, wellbeing, and quality of life. By providing safe and effective CSB classes, you can help older adults live stronger for longer and prevent falls and fall-related injuries.

This document outlines the evidence-based criteria that CSB classes must meet to be approved by Lead Agencies and eligible to use the quality tick of approval logo. The criteria are based on the latest research and best practice in falls prevention and exercise for older adults. The criteria have been updated in 2024 to reflect the feedback and learnings from the CSB providers and the evaluation of the CSB programme. Your Lead Agency will work with you to support you to meet the criteria and deliver high quality CSB classes in your community.

Overview of criteria for approved CSB classes

The following are the eight criteria that CSB classes must meet to be approved:

- <u>Criteria 1</u>: The **focus** for approved CSB classes must be to improve class participants balance and leg strength to reduce their risk of falling.
- <u>Criteria 2:</u> Approved CSB classes are targeted at **older adults** aged 65 years or older (55 years or older for Māori & Pasifika) and/or people who are at an increased risk of falling.
- <u>Criteria 3:</u> Approved CSB classes must include exercises that **challenge** class participants balance and help strengthen their lower limbs.
- <u>Criteria 4:</u> A minimum of **one third** of the total exercises done in an approved CSB class must challenge a participant's **balance**. Balance exercises should be done standing and class participants progressed over time to reduce their base of support and/or external support as appropriate.
- <u>Criteria 5:</u> Instructors must demonstrate the **ability** to lead and deliver a falls prevention exercise class for older adults to the satisfaction of the lead agency.
- <u>Criteria 6:</u> Class participants are regularly encouraged and supported to, where possible, do a minimum of **2 hours** of strength and balance exercise per week.
- <u>Criteria 7:</u> Inclusion and exclusion criteria will ensure the class is available to people at increased risk of falling as well as ensure that people unsuitable for approved CSB classes are directed to more appropriate services or health professional advice.
- <u>Criteria 8:</u> Approved CSB classes must have a means of periodically assessing participants' physical function.

Explanation of the criteria

In this section, we will explain each criterion in more detail and provide some examples and tips on how to meet them. In 2016 these criteria were agreed by a Technical Advisory Group and are evidence-based to ensure classes are both safe and effective for older adults. The criteria were reviewed in 2024 and updated to reflect the current body of evidence, as well as the views of stakeholders that routinely apply the criteria.

Criteria 1: The focus for approved CSB classes must be to improve class participants balance and leg strength to reduce their risk of falling.

The main goal of the CSB classes is to help older adults improve their balance and leg strength, which are key factors for preventing falls.

The exercises should match the goal of improving balance and leg strength. Other aspects of fitness that are less relevant for falls prevention, such as cardiovascular endurance, upper body strength, or flexibility can be incorporated but should not dominate the class activities.

Classes need to:

- be an exercise programme, not simply physical activity.
- be suitable for and specifically designed for older adults and have a focus on improving strength and balance.
- help participants improve their leg strength and balance through undertaking resistance exercises and balance exercises.

The types of classes that can be approved (provided they also meet the rest of the criteria) can include (but are not limited to):

- Traditional exercise classes
- Yoga, Tai Chi, Pilates

The following classes may also be approved (though the efficacy of these types of classes for falls prevention is still emerging, there will be certain groups who find great benefit, e.g. people who have arthritis)

- Dance based classes
- Shallow water agua classes

Criteria 2: Approved CSB classes are targeted at older adults aged 65 years or older (55 years or older for Māori & Pasifika) and/or people who are at an increased risk of falling.

CSB classes are intended for older adults who are either above a certain age threshold or have other risk factors that make them more likely to fall. The age threshold is 65 years or older for the general population, and 55 years or older for Māori and Pasifika, who tend to experience earlier onset of agerelated conditions and lower life expectancy. The age threshold is not a strict rule, but a guideline to help identify the target population for the CSB classes.

People who are at an increased risk of falling are those who have one or more of the following characteristics:

- They have slipped, tripped, or fallen over recently.
- They are worried about their strength, balance, and/or having a fall.
- They need to use their arms to get themselves out of a chair.
- They have clinically significant long term conditions affecting mobility, such as arthritis, stroke, Parkinson's disease, or diabetes.
- They have reduced bone density (osteopenia) or osteoporosis.

CSB classes should be able to accommodate people with different levels of risk and mobility and provide options for those who need more or less challenge.

Criteria 3: Approved CSB classes must include exercises that challenge class participants balance and help strengthen their lower limbs.

CSB classes must include exercises that target both **balance** and **leg strength**, as these are the key components of falls prevention. Cardiovascular fitness, upper body exercises and flexibility can be incorporated into the class, but they shouldn't dominate the class activities.

Balance exercises are those that challenge the participant's ability to maintain their centre of mass over their base of support, while performing different movements or tasks.

Leg strength exercises are those that use resistance to increase the force and power of the muscles in the lower limbs, such as the hips, thighs, calves, and feet.

Strength and balance exercises should:

- be able to be modified to suit a range of abilities,
- allow progressive challenge to balance and strengthening of leg muscles based on participant's ability.

The exercises should be based on the principles of progressive overload*, specificity*, and individualisation*. As far as possible it should be encouraged that exercises also be varied and engaging, to avoid boredom and monotony. The exercises can be done in different formats, such as circuits, stations, games, or routines. The exercises can also be done in different environments, such as indoors, outdoors, or in water.

These exercises can be done with or without equipment, such as free weights, resistance bands, chairs, or balls. The exercises can also be combined with functional movements that relate to daily activities, such as sit-to-stand, reaching for objects, or carrying items.

Participants should feel comfortable that they can pass up or modify exercises or movements that are too challenging and have the support of the instructor to do so.

Criteria 4: A minimum of one third of the total exercises done in an approved CSB class must challenge a participant's balance. Balance exercises should be done standing and class participants progressed over time to reduce their base of support and/or external support as appropriate.

CSB classes must include enough balance exercises, as having good balance is the most important factor for preventing falls. A minimum of one third of the total exercises done in a class should challenge participant's balance.

Balance exercises should be done standing as this is the most functional and relevant position for daily activities and falls prevention. Balance exercises should also be progressively challenging, by reducing the base of support and/or external support of the participant over time.

Balance exercises:

- · should have relevance to activities of daily living,
- can incorporate dual-task^{*} training,
- should incorporate both static* and dynamic* balance components,
- should provide appropriate challenge.

Participants should feel comfortable that they can pass up or modify exercises or movements that are too challenging and have the support of the instructor to do so. Similarly, instructors should be able to increase the challenge of exercises for participants who find the exercises are not challenging enough.

Lead Agencies can provide practical training and tips on how to individualise and add progressive strength and balance challenge in a group setting.

Criteria 5: Instructors must demonstrate the ability to lead and deliver a falls prevention exercise class for older adults to the satisfaction of the Lead Agency.

CSB classes must be led by instructors who have the skills and knowledge to deliver **safe and effective** falls prevention exercise classes for older adults. Instructors must be able to plan, deliver, and evaluate the classes, and to communicate, motivate, and support the participants. The instructors must also be able to **modify and progress** the exercises according to the needs and abilities of the participants, and to manage any health and safety issues that may arise.

Instructors can be registered health professionals, qualified exercise professionals, or volunteer/peer leaders, depending on the type and level of the class. Instructors must have been observed and approved by the Lead Agency to ensure they meet the required standards.

Some examples of skills and knowledge that the instructors should have are:

- understanding the principles and benefits of falls prevention and exercise for older adults
- understanding the common medical conditions and medications that affect older adults and their exercise participation
- applying the evidence-based criteria and the health and safety requirements for CSB classes
- using effective communication and feedback techniques
- evaluating and improving the quality of the classes.

Criteria 6: Class participants are regularly encouraged and supported to, where possible, do a minimum of 2 hours¹² of strength and balance exercise per week.

CSB classes must help the participants to achieve the recommended amount of strength and balance exercise per week, which is at least **2 hours**, according to the current exercise guidelines for older adults. This amount of exercise has been shown to be effective for reducing the risk of falls and improving the physical function and quality of life of older adults. The participants should be encouraged and supported to do the exercise both in the class and at home, and to continue the exercise beyond the end of the formal class programme.

Instructors should provide **education and information** to the participants about the importance and benefits of regular strength and balance exercise. Instructors should also provide resources and tools to the participants to help them exercise at home, such as exercise sheets, booklets, videos, or apps (e.g Nymbl). Lead Agencies should be able to support instructors in this regard.

Criteria 7: Inclusion and exclusion criteria will ensure the class is available to people at increased risk of falling as well as ensure that people unsuitable for approved CSB classes are directed to more appropriate services or health professional advice.

CSB classes must have clear and consistent criteria for including and excluding participants, to ensure that the classes are suitable and safe for the target population, and that people who are not suitable for the classes are referred to other services or health professionals that can better meet their needs.

The inclusion criteria are the same as the target population for the CSB classes, as described in criterion 2. The classes should be open to anyone aged 65 years or older (55 years or older for Māori and Pasifika), or anyone at an increased risk of falling, if they can safely participate in the class.

The exclusion criteria are those that indicate that the participant is too high risk to participate in the class, or that the class is not appropriate for their level of function or medical condition. The exclusion criteria should be at the discretion of the class instructor, but may include people who:

¹Manuel Montero-Odasso, Nathalie van der Velde, Finbarr C Martin, Mirko Petrovic, Maw Pin Tan, Jesper Ryg, Sara Aguilar-Navarro et al. 2022. "World guidelines for falls prevention and management for older adults: a global initiative." *Age and Ageing*, Volume 51, Issue 9, September 2022. doi: 10.1093/ageing/afac205

² WHO. 2020. "WHO guidelines on physical activity and sedentary behaviour". Geneva: World Health Organization

- are unable to get in and out of a chair independently.
- have a serious cognitive impairment that prevents them from following simple instructions (unless a carer is in attendance).
- have a medical condition that contraindicates exercise, such as unstable angina, uncontrolled hypertension, or acute infection.
- have a recent injury or surgery that affects their mobility or exercise tolerance.
- have a very high level of function or fitness that exceeds the scope of the class.

If a participant is excluded from the class, the instructor should explain the reason and provide them with alternative options, such as seeing their GP, physiotherapist, or other health professional, or joining another class or service that is more suitable for their needs. The instructor should also obtain a **medical clearance** from the participant's health professional before allowing them to join or rejoin the class, if there are any doubts or concerns about their ability to exercise safely.

Criteria 8: Approved CSB classes must have a means of periodically assessing participants' physical function.

CSB classes must have a method of measuring and monitoring the physical function of the participants, to evaluate the effectiveness of the class and the progress of the participants.

The physical function assessment should be relevant to the goal of improving balance and leg strength and should be **meaningful and appropriate** for the participants and the instructor. The assessment can be done at intervals, such as at the beginning, middle, and end of the class programme, or every few weeks or months.

The physical function assessment can be done using **various** tools and methods. The assessment should be **simple** and practical and should not take too much time or resources – Lead Agencies can provide support to instructors with this. The assessment results should be used to provide feedback and reinforcement to the participants, and to modify and progress the exercises as needed.

Assessment results are for the benefit of instructors and class participants. There is **no expectation** that instructors send this information to their Lead Agency, or that Lead Agencies collect or send this data to ACC as part of their reporting requirements.