



MASTER TEAM Boccia for older adults

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Associazione di Volontariato

OLTRE GLI OSTACOLI – o n.t.u.s

BENEVENTO







- THEME 1 -

Physical activity in older adults





Physical activity in older adults

Physical activity in older adults is essential to maintain good physical and mental health and to prevent chronic diseases.



It is essential to encourage and promote active participation in exercise programs, adapted to individual abilities and supervised by health professionals.





Physical activity in older adults

Because with aging, changes occur in the body that affect different aspects such as muscle mass, bone density, flexibility and cardiovascular capacity.





- * And these changes can lead to decreased physical functionality and increase the risk of chronic diseases, falls, and loss of independence.
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World Health Organisation Recommendations (WHO, 2020)

* According to the WHO, older adults should participate in at least:







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* According to the WHO, older adults should participate in at least:



At least 150 minutes of moderate physical activity per week

Or an equivalent combination of moderate and vigorous activities, complemented by the performance of varied multicomponent physical activity of moderate or greater intensity.





World Health Organisation Recommendations (WHO, 2020)

Según la OMS, los adultos mayores deben participar en al menos:



Or some type of vigorous activity for 75 minutes a week.

Emphasizing balance and strength work for 3 or more days a week to improve functional ability and prevent falls.





Benefits of physical exercise in older adults

- Improvement in cardiovascular health.
- Muscle strengthening.
- Increased bone density.
- Improved mental health and emotional well-being.
- Diabetes control.





Let's dig into each of the benefits

- 1. Improved cardiovascular health and reduced risk of cardiovascular diseases:
- Physical activity in older adults improves cardiovascular health by strengthening the heart, improving blood circulation, reducing blood pressure and lowering cholesterol levels.









1. Improved cardiovascular health and reduced risk of cardiovascular diseases:

- It has also been shown that even a moderate exercise program can significantly reduce the risk of cardiovascular disease in older adults (Nelson et al., 2007).
- In addition, regular physical activity reduces the incidence of cardiovascular diseases and their risk factors, which is crucial for the long-term health of older adults.









2. Muscle strengthening and improved physical functioning:

Physical activity, including strength and resistance exercises, helps improve muscle mass, strength, and physical functioning in older adults.









2. Muscle strengthening and improved physical functioning:

- * This is essential to maintain independence in daily activities and prevent disability associated with aging (Cadore et al., 2013).
- Muscle strengthening can also reduce the risk of falls and improve quality of life by allowing optimal mobility.







Let's dig into each of the benefits

3. Improved mental health and emotional well-being:

Physical activity is linked to significant improvements in mental health and emotional well-being in older people.











3. Improved mental health and emotional well-being:

It also helps reduce stress, anxiety and depression, as well as improve self-esteem and sleep quality (Netz et al., 2005).

Participation in physical activity programs, such as group classes or outdoor exercise, also encourages socialization and social interaction, which is beneficial for the mental health of this population.







4. Reduced risk of falls and bone fractures:

Physical activity that includes balance, coordination and muscle strengthening exercises helps reduce the risk of falls and bone fractures in older people.









4. Reduced risk of falls and bone fractures:

These exercises improve stability and coordination, which are essential to prevent falls and their consequences in this population (Gillespie et al., 2012).

Reducing the risk of falls is essential to maintaining quality of life and independence in older adults.









5. Control of diabetes and improvement of metabolism:

Regular physical activity is crucial for managing diabetes in older adults.











5. Control of diabetes and improvement of metabolism:

Physical activity also contributes to the regulation of blood glucose levels, improves insulin sensitivity and facilitates the maintenance of a healthy body weight (Umpierre et al., 2011).

Aerobic and resistance exercise are particularly effective in managing type 2 diabetes and improving metabolic health in this population.

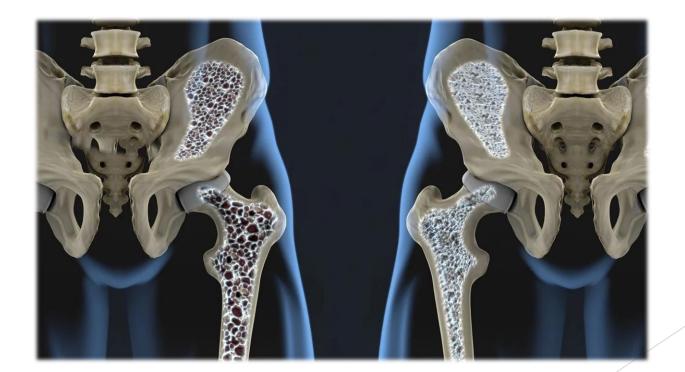






6. Increased bone density and prevention of osteoporosis:

Physical activity, especially weight-bearing and resistance exercise, stimulates increased bone density and helps prevent osteoporosis in older people.









6. Increased bone density and prevention of osteoporosis:

These exercises strengthen bones and reduce the risk of fractures, promoting bone health as we age (Howe et al., 2011).

Proper maintenance of strong and healthy bones is essential for mobility and quality of life in old age.







OTHER PHYSICAL ACTIVITY FOR OLDER ADULTS

- Helps control body weight.
- Improve joint health.
- Reduce the risk of cognitive decline and dementia.
- Reduction in the risk of falls and bone fractures.

Nelson et al., 2007





Safe and effective physical activity is essential for older adults. Below are some recommendations that can help older adults appropriately incorporate physical activity into their routine:



Prior medical consultation: Before starting any exercise program, it is essential that older adults consult their doctor to evaluate their health status and receive personalized recommendations (Nelson et al., 2007).





❖ Tailored program design: The exercise program should be tailored to the individual capabilities and needs of each older person, taking into account their physical status, abilities, and medical conditions (American College of Sports Medicine et al., 2009).

Tabla 4. Relación entre capacidades físicas y variables sociodemográficas en Barranquilla/Tunja

	IMC OR (IC)		Fuerza mi or (ic)		Fuerza ms or (ic)		Resistencia aeró- bica or (ɪc)		Flexibi- lidad in- ferior or (1c)	Flexibilidad superior OR (IC)		Equilibrio or (1c)	
Sexo	В	T	В	T	В	T	В	T	В	В	T	В	T
Mujer	2.2 (1.1-4.4)	1.6 (0.7-3.9)	0.85 (0.43-1.6)	4.3 (0.5-33.2)	0.46 (0.24-0.90)	0.8 (0.2-2.3)	0.60 (0.31-1.1)	0.9 (0.4-2.0)	1.0 (0.5-2.0)	0.9 (0.4-1.9)	1 (-)	0.5 (0.2-1.2)	1 (-)
Hombre*	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)	1.0 (0.4-2.8)	1 (-)	1.2 (0.4-3.1)
						Rango de e	dad						
60-74 años*	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)
75-90 años	0.7 (0.4-1.4)	0.7 (0.3-1.4)	0.6 (0.3-1.1)	1.0 (0.4-2.7)	0.5 (0.2-1.0)	1.1 (0.4-2.7)	0.9 (0.4-1.6)	2.2 (1.1-4.3)	0.8 (0.4-1.4)	0.7 (0.4-1.4)	1.2 (0.5-2.9)	0.3 (0.1-0.6)	1.4 (0.7-2.9)
						Escolarid	ad						
Baja	0.9 (0.2-3.1)	1.4 (0.7-2.7)	1.0 (0.2-3.5)	0.3 (0.1-0.9)	1.0 (0.3-3.6)	0.6 (0.2-1.3)	2.2 (0.6-7.5)	0.6 (0.4-1.1)	2.3 (0.6-7.9)	1.4 (03-4.9)	0.4 (0.2-0.8)	0.7 (0.6-0.8)	0.5 (0.2-1.0)
Media/Alta*	1 (-)	1 (-)	1 (-)	1 (-)	1 (-),6	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)
						Estado ci	vil						
Sin pareja	2.6 (1.2-5.6)	2.2 (1.1-4.7)	0.9 (0.5-2.0)	0.3 (0.1-0.9)	0.8 (0.3-1.6)	0.5 (0.2-1.2)	1.1 (0.5-2.3)	0.8 (0.4-1.7)	0.7 (0.3-1.6)	1.1 (0.5-2.4)	0.1 (0.0-0.7)	1.4 (0.3-6.1)	0.6 (0.3-1.3)
Con pareja*	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)
					A	filiación a	salud						
Subsidiado	0.4 (0.2-1.1)	1.0 (0.5-2.0)	2.3 (0.8-6.6)	4.3 (1.9-9.6)	0.6 (0.2-1.4)	2.6 (1.2-5.3)	1.4 (0.5-3.6)	1.2 (0.6-2.0)	1.6 (1.4-1.8)	1.0 (0.4-2.5)	1.0 (0.5-2.1)	1.5 (0.6-3.8)	2.1 (1.1-4.0)
Contributivo*	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)	1 (-)

B: Barranquilla; T: Tunja.





Include strength and balance exercises: Working together on strength and balance exercises is essential to improve functionality and prevent falls in older people (Sherrington et al., 2017).







Moderate-intensity aerobic exercise: Moderate-intensity aerobic activity, such as walking, swimming, or cycling, should be included to improve cardiovascular health and endurance (Nelson et al., 2007).









Promote daily physical activity: The promotion and inclusion of physical activity in daily life, such as climbing stairs, doing housework or gardening, to increase activity levels sustainably (Hallal et al., 2012).







Constant monitoring and adjustment: It is important to monitor progress, adjust the program as necessary, and maintain long-term motivation and adherence (Chodzko-Zajko et al., 2009).







- THEME 2 -

Improved nutrition!





❖ 1. Enjoy food and much better if you enjoy it in company. It is highly recommended to avoid loneliness: eating in company, promoting a playful atmosphere at meals and increasing social relationships improve the quality of the diet in older people and reduce the risk of depression.







* 2. Prioritize foods of plant origin (whole grains - whole wheat bread, whole wheat pasta, brown rice, etc. -, fruits, vegetables, legumes and nuts) over those of animal origin, and consume few superfluous foods.







- 3. Distribute food into 3-5 meals/day.
- This is particularly important if there is loss of appetite, in which case a greater distribution of meals in small quantities favors a greater contribution of energy and nutrients. It should not be forgotten that the most important thing is, in any case, the quality of the intakes. Having a croissant for breakfast is not the same as having whole wheat bread spread with tomato.

DAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
BREAKFAST	Whole wheat bread with turkey ham, pineapple juice and Greek yogurt.	oatmeal with strawberries.	Coffee with sugar-free skim milk + 1 medium oatmeal pancake + 1 slice of white cheese.	Chocolate and banana smoothie.	Whole wheat bread with avocado and egg.	Boiled eggs and toasted whole wheat bread.	Papaya and oatmeal smoothie.
MIDMORNING	1 apple, 1 glass of water and a handful of nuts.	1 cup of pineapple in pieces and a glass of water.,	1 slice of watermelon and 10 units of peanuts.	1 green apple and a cup of green tea.	Fruit salad (watermelon, strawberries, grapes, apple)	1 tangerine and 1 glass with water.	1 cup of pineapple in pieces and a glass of water.
LUNCH	Grilled chicken breast, brown rice, broccoli and pineapple water.	Lemon chicken breast and steamed vegetables.	1 turkey breast fillet, 4 tablespoons of quinoa, 1 cup of cooked vegetables, 1 teaspoon of olive oil.	Roasted chicken breast and salad.	Steamed fish and vegetable salad.	Sauteed shrimp and steamed vegetables.	Salad vegetables with chicken grilled.
MID	Greek yogurt with pieces of strawberries. Greek yogurt and a banana.		1 skim yogurt and 6 walnuts	1 cup of strawberries.	Papaya smoothie.	1 mango.	1 kiwi and 1 glass of water.
CENA	Vegetable soup (you can add chicken breast or seafood).	Steamed fish.	Grilled beef fillet, lettuce, tomato, carrot and cucumber in pieces.	Baked salmon with steamed vegetables	Steamed broccoli, 1 boiled egg, yogurt and a fruit.	Grilled meat steak with cooked vegetables.	Chicken breast, 2 slices of avocado and vegetables steam.





4. Eat more than one hot meal a day. Eating hot does not have great nutritional importance, but it does make meals more pleasant (increases their aroma and flavor), which will make eating more rewarding.







❖ 5. Avoid monotony and very restrictive diets that will limit the consumption of some foods. The Australian Dietetic Society promotes, in older people, advises consuming 30 different foods a day (on average for a week). Exercise, in addition to all the benefits mentioned above, promotes sun exposure, which is important for the skin to synthesize a vitamin crucial for bone health: vitamin D.









6. Eat in moderation, to maintain a stable weight and avoid obesity. As the Institute of Medicine (United States) noted in 2012, older people have traditionally been considered frail and underweight.







* 7. Moderate the consumption of salt and salty foods. It is better to buy bread whole grain and without salt for this reason. Sausages, cheeses and some precooked foods represent our main salt intake.









8. The less alcohol, the better. Alcohol, in addition to being related to a very long list of diseases, even in "moderate" consumption (which should be called "low risk"), can depress appetite, displace other foods in the diet and can interact with various nutrients.











Recommendations to improve nutritional quality

❖ 9. Do not consume sugary foods daily since, in addition to increasing the risk of obesity, they will harm oral health.







Recommendations to improve nutritional quality

❖ 10. Various entities consider it advisable that people over 50 years of age take either vitamin B12 supplements (very important for vegetarians) or foods enriched with this vitamin, given the high prevalence of B12 deficiency in said population group. Vitamin B12 has a broad safety profile.









BOCCIA TERM?



The term "boccia" derives from the Latin "bottia" or "bottica", which translates as "ball" or "small ball", and has been documented since the 5th century.



In Ancient Rome it was a game played by soldiers with stones or metal balls.



As the years went by, the game was perfected and leather balls replaced stones.





ROOTS



The origins of Boccia have their roots in petanque, a traditional ball game played in several countries, especially in Europe.



Pétanque has its roots in France and the same objective as Boccia, to place the greatest number of balls near a bowling alley and has the advantage that it can be practiced on any sand surface.





Let's get to know it

Petanque, a sport for both fun and competition.

In the world championship held every year, the winner par excellence is usually France. It has been practiced for more than 20 centuries, standing out in the countries of France and Spain and today, its popularity has already established itself on all five continents, growing in countries such as the United States and

Australia.







Let's get to know it

It has always been characterized as a fairly calm game and has been accompanied by the advantage that it can be played on almost any sandy terrain. For a few years now, official championships have even been held and there is a world competition in which one of our neighboring countries, France, always stands out.







HISTORY OF PETANQUE



- Practiced since the 6th century BC by the Greeks who played with songs;
- The Romans honed the skill with the idea of an objective (bowling) that had to be approached.

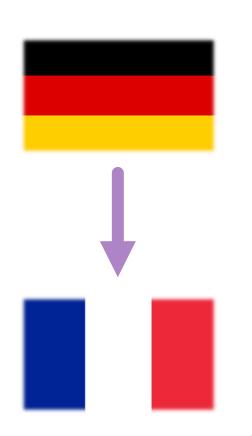
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HISTORY OF PETANQUE

- It reached Gaul and Germany, where it even took on a religious significance that led to its prohibition in countries like England.
- At the end of the 19th century and beginning of the 20th century it was practiced throughout France, where players used to take a run to throw their balls with momentum.







HISTORY OF PETANQUE

- * And it was not until 1907 when the game was born without momentum.
- In 1910, Ernest Pitiot organized the first official competition and from that moment on the progression has not stopped.









One of the two opponents, chosen by lottery, selects the starting point, a circle 35-50 centimeters in diameter from where the balls will be thrown.







- The player throws the bowling ball from within this area, and must reach a distance of 6 to 10 meters. From there the balls are launched from a fixed position.
- *The players take turns throwing from the circle, from which they cannot leave to shoot.





The balls can be sent either flying or rolling on the ground.



There are two ways to throw them: one is to throw the ball carefully, trying to get as close as possible to the pin, and another is to throw the ball with a certain force to hit the opponent and move it away.





Once all the balls have been thrown, those of a player or a team that are closer to the jack than the opposing ones earn a point.







The distance between the balls and the pin is measured with a metal rod (baguette), allowing obstacles to be removed, and the winner is whoever scores 13 points first.







- No player may be absent from the game or leave the field of play without the referee's authorization.
- Participants must be present both at the draw to start the game and at the proclamation of its results.





* There are individual, couples and triple games. Each participant plays three or four balls in singles, three in pairs and two in triplets.









What is Boccia?

It is a sport with many similarities to PETANQUE.









What is Boccia?





Boccia, a Paralympic sport that combines strategy and precision.



The objective of each player is to throw his balls and leave them as close as possible to the target ball (white ball), trying in turn to move his opponent's balls.





What is Boccia?

This sport can be practiced by all people, regardless of their degree of disability, at a competitive level or for leisure.

It can be practiced individually, in pairs or in teams of 3 players.







- THEME 4 -

Boccia Curiosities





Boccia is a Paralympic sport that was developed in the 1970s, similar to other games such as curling, quoits, and pelota canaria, as an adaptation of the traditional game of petanque, designed specifically for people with physical disabilities.







*It is a game of strategy and precision that bases its execution, like many other sports, on the technical, tactical and physical qualities of the athletes who practice it.







During the Roman Empire it was practiced in their leisure time, as a hobby. However, it was in Italy (13th century) where its development began.







In the 16th century, boccia was recovered by the Nordic countries and England in order to adapt it to people with disabilities.







Over time, rules and regulations were established for competitive practice, consolidating its position as a recognized sport.







In the 19th century, it became popular in Italy and spread to other European countries, becoming a popular sport.







Its greatest transformation occurred in the second half of the 20th century, in the 1950s, when it evolved to include people with physical disabilities.





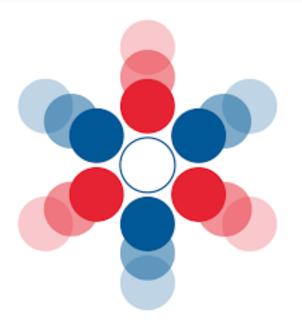




In the 1970s modern rules were established and in 1984 the International Boccia Federation (BISFed) was founded.

BISFed

Boccia International Sports Federation







- THEME 5 -

Competitions and modalities











Boccia was first included in the New York
 Paralympic
 Games in 1984 and has been a featured
 Paralympic sport ever since.





PARALYMPIC GAMES & BOCCIA



















































The Paralympic
Games and the
Olympic Games have
been held together in
the same city since
the 1988 Seoul
Games. In this
version of Tokyo, the
Paralympics offer 23
different disciplines.





PARALYMPIC GAMES & BOCCIA





Of all of them, boccia and goalboll are the only two sports on the program that do not have an Olympic counterpart. It is currently practiced in more than 50 countries around the world and consists of seven medal events.

These two sports were created for people with mobility difficulties or visual disabilities, unlike other sports that are an adaptation of those competed in the Olympic Games.





OLYMPIC AND PARALYMPIC GAMES?





- Almost the same facilities.
- 32 Olympic disciplines in Paris 2024.
- New discipline: Breakdance.

- Almost the same logistics.
- 22 Paralympic disciplines in Paris 2024.
- ▶ No new discipline.
- ❖ Paris 2024 will be the first time that the Olympics. OO. And JJ. PP. share emblem and mascot.
- The emblem will be a combination of three elements: a gold medal, a flame and a representation of Marianne, the allegorical figure of a woman wearing a Phrygian cap that identifies the French Republic. The mascot will also be the same, Phryge, the small Phrygian cap who, in his Paralympic version, uses a prosthetic leg.





OLYMPIC AND PARALYMPIC GAMES?











Competitions and international recognition

- Boccia, also called bocce, is a featured sport in the Paralympic Games and has gained popularity over the years.
- In addition to the Paralympic Games, there are several competitions at world, continental and national level that promote boccia.







Competitions and international recognition

* The International Boccia Federation (BISFed) is the organization that governs the sport internationally and establishes the rules and regulations.







- The boccia categories are mixed and depending on the level of disability and motor functionality of the athlete, 4 divisions/categories are established:
- * BC1. Athletes with Cerebral Palsy or Acquired Brain Injury, who can throw with their hand or foot and need the help of an assistant.







- The boccia categories are mixed and depending on the level of disability and motor functionality of the athlete, 4 divisions/categories are established:
- ❖ BC2. Athletes with Cerebral Palsy or Acquired Brain Damage, who throw by hand. In this category, players depending on their degree of disability and motor functionality can throw without the help of an assistant.







- The boccia categories are mixed and depending on the level of disability and motor functionality of the athlete, 4 divisions/categories are established:
- ❖ BC3. Athletes with Cerebral Palsy, Acquired Brain Injury or Severe Physical Disability who throw using a chute and with the help of an assistant assistant.







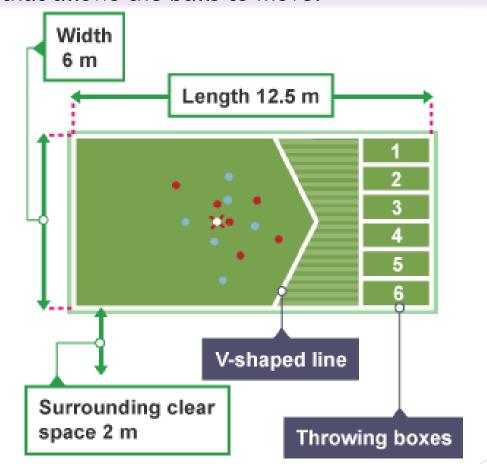
- * The boccia categories are mixed and depending on the level of disability and motor functionality of the athlete, 4 divisions/categories are established:
- * BC4. Athletes with Severe Physical Disabilities but do not have cerebral palsy, who can throw with their hands and feet.







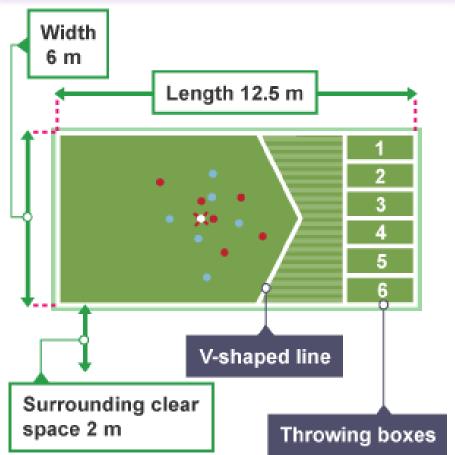
* The playing field is shaped like a rectangle measuring 12.5 x 6 meters, on a flat and smooth surface that allows the balls to move.







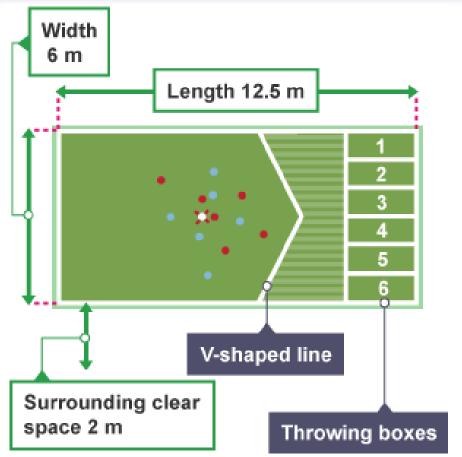
At one end of this game rectangle, 6 spaces will be marked for the placement of the players.







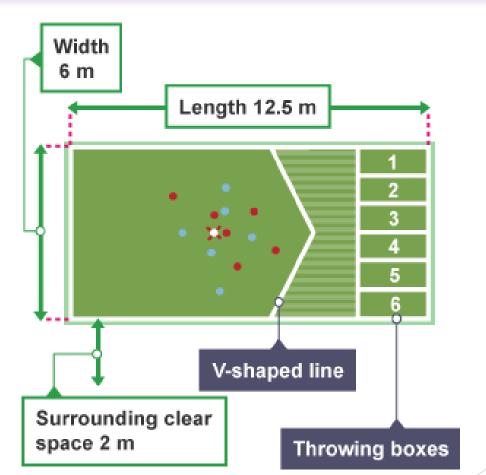
These spaces will have a width of 1 meter and 2.5 meters long. The places marked 1, 3 and 5 will be for local players and those marked 2, 4 and 6 will be for visitors.







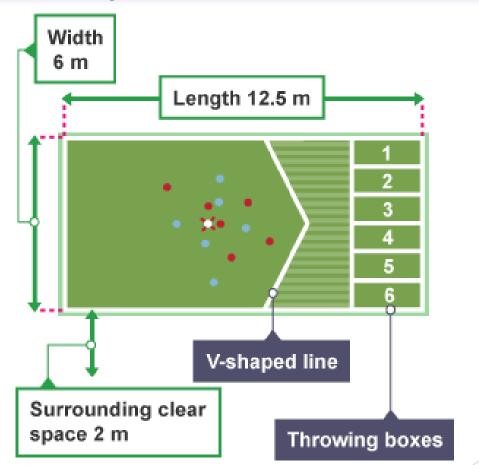
clusion zone where the white target ball cannot fall. This area is marked by a "V"-shaped line whose vertex is located 1 meter from the launcher placement area and whose arms end 3 meters from that same end line of the launch area.







Finally, a point located 3 meters from the sides and 5 meters from the baseline marks the place where we will place the cue ball again in case it goes out of bounds or an extra end is played.







- THEME 6 -

Boccia materials and standards





Material resources

- * The material necessary for the game will be composed of 13 balls (6 red, 6 blue 8.3 cm and the white target ball.
- * Each athlete can play with their own set of balls, adapting their characteristics to their functional characteristics and the degree of their disability.

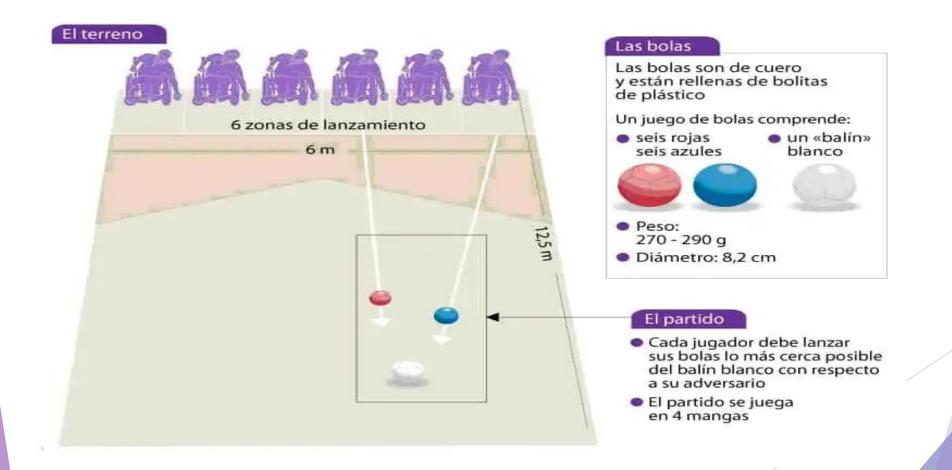








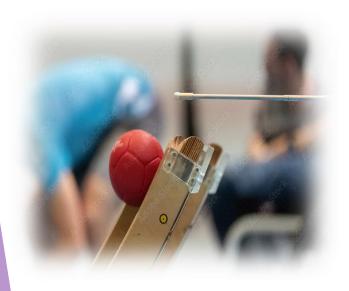
Facilities and Material Resources







Facilities and Material Resources















How to play?

* Firstly, the participants choose the color of the game balls (a choice made by throwing a coin into the air and the red color being chosen by whoever throws it first).











- The game begins with the throwing of the white target ball by one of the athletes.
- The athlete who launched the white target ball is responsible for "opening fire" by launching the game ball, followed by a thrower from the opposing team.







How to play?

❖ From this moment on, the athlete or team that has their ball(s) furthest from the white target ball will throw and this procedure will continue until all participants have thrown their balls.







How to play?

To know which color to throw, the main referee of the match will show with a paddle (which shows a color on each side) which color he should throw.







Individual boccia?

- In the individual divisions, a match will consist of four sets except in the case of a tiebreaker.
- Each player starts two of the ends controlling the cue ball, alternating this function between the Players.







Individual boccia?

Each Player receives six red and blue balls based on their choice when winning the draw.

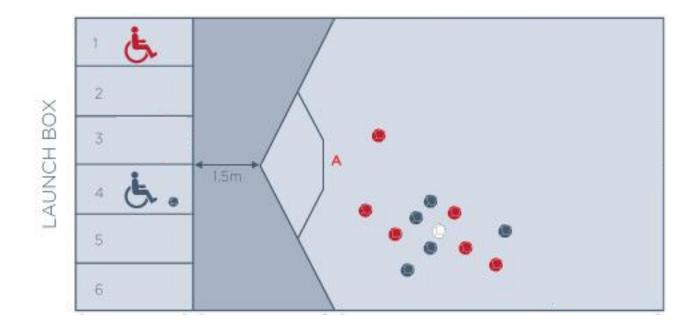






Individual boccia?

❖ The thrower who chooses the red balls is the one who starts the game and will occupy the box marked on the playing field with the number one and the one who throws the blue balls will occupy the box marked on the playing field with the number four.







Boccia in pairs?

- In the pairs division, a match will consist of four sets except in the case of a tiebreaker.
- Each player begins the end with the white ball passing in numerical order from the throwing box number 2 to 5. Each player will receive three balls.
- The side that is in possession of the red balls will occupy boxes 2 and 4 and the side that has the blue balls will occupy boxes 3 and 5.







Boccia in pairs?

- The number of balls per pair will be three balls per player and one white ball per pair.
- The remaining balls of the games and the balls that will be used by the substitutes will be placed in the area designated for this purpose.







Boccia as a team?



- In the team division, a match will consist of six sets except in the case of a tiebreaker.
- *Each Player will start an end by throwing the white ball passing in numerical order from boxes one to six.







Each Player will receive two balls.

The team that throws the red balls will occupy boxes one, three and five and the team that throws the blue balls will occupy boxes two, four and six.







Boccia as a team?



- The number of balls per team will be two balls per player and one white ball per team.
- The remaining balls from the games and the balls that will be used by the attributes will be placed in the area designated for this purpose.





Score system?

- The athlete who leaves the colored ball closest to the white target ball will score one point for each of the balls that are closest to the white ball with respect to the closest ball of the opposing athlete or team.
- *At the end of the partials, the points obtained in each of them will be added, with the winner being the one with the most points.





Score system?

- In the individual divisions, a match will consist of four sets except in the case of a tiebreaker.
- *Each Player starts two of the ends controlling the cue ball, alternating this function between the Players.





What if there is a tie?

- If the same score is obtained, a partial "tiebreaker" is played.
- In all matches, points scored in the tiebreaker will not count towards the player's score in that match; but will only serve to determine the winner.
- As in any sport, there are penalties established by the regulations.







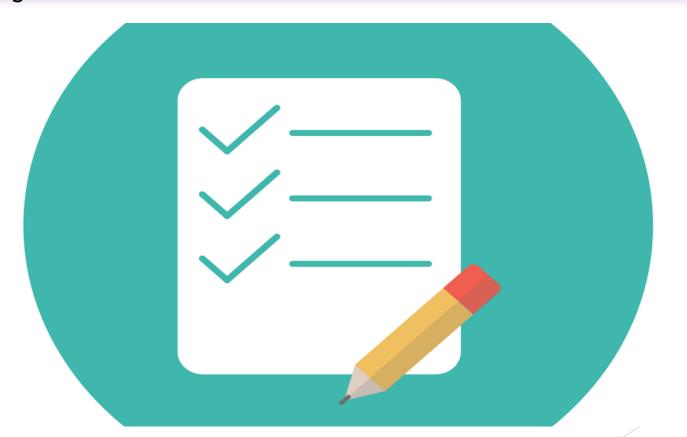
BOCCIA WORK IN OLDER ADULTS

- * To adapt the boccia to older people, considerable adjustments can be made, such as:
- Have lighter balls to reduce physical effort, especially in the case of people with muscle weakness.
- Reduce the launch distance to make it more affordable.
- Incorporate technical aids, such as launching ramps.
- Allowing the assistance of a helper can facilitate active and satisfactory participation in the game.





El protocolo adecuado a seguir cuando se inicia la boccia con adultos mayores es el siguiente:







❖ 1. Initial evaluation: Before starting any training program, it is essential to conduct an evaluation of the health and physical condition of each senior. This will allow the program to be adapted to your individual needs and limitations (Ostir et al., 2002).







❖ 2. Warm-up: Warming up is essential to prepare the body before physical activity. It includes joint mobility exercises, dynamic stretches and gentle breathing exercises (Taylor et al., 2008).







3. Technique and basic skills: Proper teaching of technique is essential in boccia. Time must be dedicated to understanding and practicing the techniques of launching, directing and controlling the ball on the dribble (Brito et al., 2020).







4. Accuracy drills: Specific drills can be designed to improve throwing accuracy. For example, placing obstacles on the court to simulate real game situations and improve dexterity and precision (Fragoso et al., 2021).







5. Muscle strengthening: Muscle strengthening is essential to improve boccia performance. Exercises should be included to strengthen the muscles of the upper trunk, core and lower body, to perform precise and powerful throws (McVeigh et al., 2015).







6. Flexibility and mobility: Stretching and mobility exercises are essential to maintain good range of motion in the joints and prevent injuries. This is crucial for proper movement during throwing and moving on the court (Petrella et al., 2005).







- **7. Practical play:** Integrating practical play sessions is crucial to apply the skills acquired. Simulated games should be organized for participants to practice strategies, coordination, and decision-making in real situations (Brito et al., 2020).
- **8. Focus on fun and well-being:** It is essential to maintain a positive environment, where fun and active participation take center stage. Celebrating achievements and encouraging socialization and enjoyment of the game are key aspects for the well-being and motivation of participants (Hawkins and Caldwell, 2011).







Boccia and its practice not only promotes physical activity, but also provides various benefits for the comprehensive health of its participants both at the level:





PHYSICAL BENEFICTS







PSYCHOLOGICAL BENEFITS







SOCIAL BENEFITS







These benefits make boccia not only a physical exercise, but also an activity that nourishes the mind and contributes to a better quality of life.







1. Improved quality of life:

- development of coordination, because it involves precise and coordinated movements when throwing the balls, which contributes to the development and improvement of motor coordination;
- to muscle strengthening, since the mere fact of throwing the balls and participating in the associated movements helps to strengthen the muscles of the extremities mainly;
- improvement of flexibility, thanks to the repetition of movements that contributes to the improvement of joint flexibility.





2. Reduction of stress and anxiety:

- Regular boccia practice can help reduce stress and anxiety by promoting the release of endorphins, hormones that act as natural pain relievers and generators of well-being.
- The physical exercise involved in boccia also helps relieve pent-up tension and relax the body and mind (Stubbs et al., 2017).







3. Mental stimulation and concentration: Boccia requires a high degree of concentration and strategic planning to make decisions and achieve precise throws. This constant concentration contributes to mental stimulation and the development of cognitive skills, improving mental agility, the ability to concentrate and hand-eye coordination. These mental skills are essential for both gaming and daily life (Fragoso et al., 2021; Voelcker-Rehage et al., 2010).





4. Promote resilience: Boccia can contribute to the development of psychological resilience when facing challenges and difficulties during the game. Learning to cope with the pressure of competition and persist despite defeats strengthens emotional resilience, helping players overcome adversity in everyday life (Fragoso et al., 2021; Southwick et al., 2016).







5. Increased self-esteem: Participating in boccia and getting better at the game can have a positive impact on self-esteem and self-confidence. By achieving goals and improving their skills, players gain a sense of achievement and recognition, which influences greater confidence in their abilities (Fragoso et al., 2021; McAuley et al., 2000).







6. Socialization and sense of community: Boccia encourages social interaction and integration, by providing people with disabilities or reduced mobility the opportunity to participate in a sporting activity and the establishment of meaningful relationships, especially when playing as a team. This social interaction and integration can provide a sense of community, group belonging, and emotional support, thus improving the psychological well-being of participants (Fragoso et al., 2021; Haslam et al., 2016).







7. Motivation and personal goals: Setting personal and challenging goals in boccia practice can increase the intrinsic motivation of players. By pursuing and achieving these goals, players experience a greater sense of satisfaction and commitment to the activity, which contributes positively to their psychological well-being (Fragoso et al., 2021; Deci and Ryan, 2000).





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