



Bowls Club Finder 

Stay Healthy, Stay Bowling!

Tips and advice to help you stay healthy and stay bowling – no matter the age!

It doesn't matter what age you are, the will to enjoy the sport you love will never leave you.

You might feel like those odd little twinges and those dull aches and pains might limit you from time to time – but the buzz of beating your local rival and coming out on top is still very much with you.

If only you could find a way to work around those stiff joints and stubborn, aching muscles you'd be on top form for sure. And what's more you'd continue to enjoy the sport you love.

And that's the purpose of this guide – to help you overcome the obstacles that your body throws at you and keep playing the game of bowls without issue.

We cover everything you need to know in this article, from supplements that can improve mobility, to specific exercises that can strengthen muscles and joints.

This is a guide to maintaining longevity in the sport of bowls.

Currently, as many as 92% of bowls players are over 45 years old and participation statistics suggest that around two thirds of players are male and one third female [1].

We've written this guide for anyone involved in bowls who might suffer from joint issues, muscle aches, generalized pain or even arthritis, but with an emphasis on the older adult, regardless of whether you're a lady or a gent.

Whether you take part in bowls for fun and want to play without aches and pains, or you're a more competitive player who wants to perform as best as you can, this guide is for you.

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THE HEALTH BENEFITS OF BOWLS

1 Bowls Increases Lean Mass and Improves Body Composition

One of the biggest challenges that older adults face is the loss of muscle through inactivity. Referred to as 'sarcopenia', a significant loss of muscle can affect everything from metabolic health, to functional strength if it isn't corrected.

Without physical activity, sarcopenia can result in a loss of as much as 50% of skeletal muscle mass by 80 years old. Okay, bowls isn't like weightlifting that results in large muscles, but it definitely offsets muscle loss, reducing frailty and weakness.

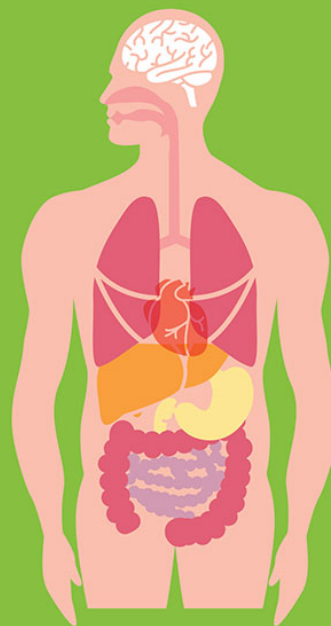
Physical activities such as bowls help to reduce osteoporosis risk by offsetting the loss of bone cells or possibly even stimulating new bone cell growth.



2 Playing Bowls Improves Vascular Health

Physical activity, whether it's intense and vigorous or as leisurely as a stroll through the park, helps to improve vascular health. Ultimately, inactivity is in itself a big risk factor for cardiovascular disease in older adults.

Regular bowls playing essentially has a cardioprotective role.



3 Bowls Promotes Independence and Functional Ability

A characteristic of health and well-being is the ability to move freely and independently. Because of biological changes that occur during ageing, many older adults lose their functional ability and as such can't complete day-to-day activities.

Exercise such as lawn bowls helps you maintain and even improve important daily functional ability such as stability, continence, mobility and above all else - confidence in your own physical capabilities.



4 Bowls Helps Improve Cognitive Health

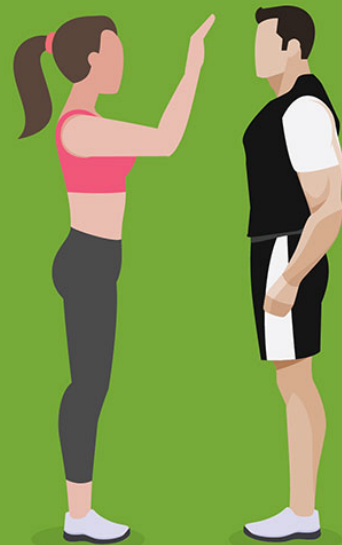
Bowls requires coordination, agility and strategy. Refining your tactics, concentrating for long periods of time and maintaining mental alertness not only help you maintain a good level of motor skills - they help with brain health too.



Research is fairly conclusive that physical activity boosts brain health. It enhances higher-level functions such as spatial awareness and motor skills. It also offers neuroprotective benefits too by reducing your risk of age-related

5 Improved Mood, Social Relationships and Enjoyment

Bowls is a community sport. It is a pastime where like-minded people come together to enjoy competition, camaraderie and some good physical activity - all with their peers.



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The Health Benefits Of Playing Bowls

Before we get into the mobility, nutrition and exercise part of the guide, it's important to go over the general health benefits of bowls. That way you'll be able to see exactly why we're recommending a particular exercise drill or supplement as we can link it back to specific health (as well as performance) benefits of the sport..

Bowls increases lean mass and improves body composition

All physical activity requires muscular work. Bowls might not be the most aggressive or demanding exercise you could choose to take part in, but it still provides a stimulus for maintaining muscle mass – particularly in the lower body.

One of the biggest challenges that older adults face is the loss of muscle through inactivity. Referred to as 'sarcopenia', a significant loss of muscle can affect everything from metabolic health, to functional strength if it isn't corrected.

Without physical activity, sarcopenia can result in a loss of as much as 50% of skeletal muscle mass by 80 years old. Okay, bowls isn't like weightlifting that results in large muscles, but it definitely offsets muscle loss, reducing frailty and weakness.

Bowls requires energy to play. And that energy comes from the calories that you eat through various foods. Although your exact calorie burn is dependant on a number of different factors such as your body weight and height, you can expect to turn over a good 200 calories per hour participating in lawn bowls – and this contributes to a leaner physique.

On a related note, ageing is also associated with a loss of bone mineral density, with the greatest rate of bone loss occurring in men and women aged from 60 onwards [1]. This in itself becomes a risk factor for osteoporosis, fractures and both functional mobility and postural health.

Physical activities such as bowls help to reduce osteoporosis risk by offsetting the loss of bone cells or possibly even stimulating new bone cell growth.

Playing bowls improves vascular health

Physical activity, whether it's intense and vigorous or as leisurely as a stroll through the park, helps to improve vascular health. Ultimately, inactivity is in itself a big risk factor for cardiovascular disease in older adults.

According to a large document called the *Compendium of Physical Activity* [2] (it details how intense different activities are), lawn bowling has an intensity of 3.3 METs which is the equivalent of walking, horseback riding, golf and laundry work – all fairly intense activities.

The World Health Organisation suggest that 150 minutes or more per week at this kind of intensity is inversely related to the risk of vascular disease. Regular bowls playing essential has a cardioprotective role.

Promotes independence and functional ability

A characteristic of health and well-being is the ability to move freely and independently. Because of biological changes that occur during ageing, many older adults lose their functional ability and as such can't complete day-to-day activities.

Exercise such as lawn bowls helps you maintain and even improve important daily functional ability such as stability, continence, mobility and above all else – confidence in your own physical capabilities.

Being more capable of participating in everyday tasks helps to increase confidence, self-esteem, mental health and social relationships (meeting with friends and so on). Regular bowls playing will improve strength,

reduced risk of falls considerably, reduce mobility-related illness and promote longevity and health.

Improved cognitive health

Part of the ageing process is a slowing down of cognitive processing speed. This affects everything from memory and task-related activities to changes in molecular growth factors as BDNF that play a crucial role in protecting your brain and nervous system.

In the ageing adult, typical decreases in brain volume are around 0.35% per year after the age of 50. Key areas of the brain such as the ventricles, hippocampus and frontal cortex can also see a decline in volume and function too [3].

But physical activity offers protective effects.

Bowls requires coordination, strategy, agility and strategy. Refining your tactics, concentrating for long periods of time and maintaining mental alertness not only help you maintain a good level of motor skills – they help with brain health too.

Research is fairly conclusive that physical activity boosts brain health [4]. It enhances higher-level functions such as spatial awareness and motor skills. It also offers neuroprotective benefits too by reducing your risk of age-related

Improved mood, social relationships and enjoyment

Bowls is a community sport. It is a pastime where like-minded people come together to enjoy competition, camaraderie and some good physical activity – all with their peers.

An interesting study published by the *BMC Public Health* [5] found that when older adults were asked *why* they participated in bowls, the common

answer was simply that they enjoyed it, and they valued the affiliation that being in a team brought.

The Older Adult and **Supplements** to Improve Bowls Playing – Which Ones Should You Consider?

The supplement industry is a multi-billion dollar machine. If you listened to these pharmaceutical giants you'd be thinking that you needed a vitamin or pill for every facet of your life. Luckily you don't.

But there are some dietary supplements that are useful when it comes to increasing your physical performance, optimizing your health and wellness and speeding up general recovery from exercise as an older adult. These are the ones that we'd suggest you take a look at.

Supplements to optimize vascular health

In an interesting and comprehensive review of common supplements used by older adults [6], many were found to have little or no health benefits. Although marketed as health tonics, many just had no effect at all.

One of the only ones that was beneficial was seen to offer any cardioprotective advantage. This was called **omega-3 fatty acids**.

And whilst you'll find this heart health compound in foods such as fatty fish, eggs and flaxseed, a supplement provides an easy-to-access and fairly cheap alternative option.

In the study, researchers concluded that when it comes to reducing coronary vascular disease, sudden cardiac death risk, cognitive decline and stroke, fish oil is the way to go.

An emerging alternative to omega-3 fatty acids from fish oil though is **krill oil**. This supplement still provides the important omega-3 compounds EPA and DHA, but in krill oil, these fatty acids are packaged up as

phospholipids, which allow for more efficient tissue take up. According to studies, this increases the amount of EPA and DHA in the blood; and its bioavailability too [7].

Another study found that when a group of adults aged up to 65 years old were given a combined 1,700 mg of EPA and DHA from either krill or fish oil, krill oil was much more bioavailable (as measured over a 72-hour period after ingestion) [8].

Supplements to improve joint health

When it comes to joint health, not everyone needs to take supplementation. However, there are a few groups in particular that should consider using a small selection of supplements to improve joint health.

- **Overweight adults** who may experience both joint pain and wear and tear as a result of excess joint pressure.
- **Professional or amateur athletes** who regularly participate in high impact activities or activities that are repetitive.
- **Senior adults** who may be suffering age-related degeneration of joint tissue, have rheumatoid or osteoarthritis, or those who wish to maintain joint integrity and wellness.

If you suffer from joint pain and want to supplement something that will improve your symptoms, you can consider the following:

Glucosamine is an amino sugar health supplement derived from shellfish. It is also probably the most well known and most purchased joint supplement on the market too. It occurs naturally in the fluid around joints and bones as is used in the building of cartilage.

The most studied form of glucosamine appears to be **glucosamine sulfate** as opposed to hydrochloride.

For example, one study of osteoarthritis patients have found that 1,500 mg daily of glucosamine decreased knee pain in a group of over 250 outpatients [9]. The results showed a reduction in pain of 55% compared to placebo pain reduction of 38% – not a massive difference, but a difference nonetheless.

A few other studies have noted a minor reduction in pain too, as well as improvements in CTX-II (a marker of collagen loss), recovery from acute knee injury and increased range of motion in the joint too.

However, there are concerns about the strength of some of the research funded by manufacturers of the supplements and also a few studies showing no significant differences to joint health when taking the supplement. It appears that glucosamine is one of those compounds that might work for you, but also might not.

What's worth noting is that although the pharmacological industry will tell you that this supplement will cure every kind of joint-related issue, but in reality it appears most suited to those with mild joint pain or collagen degradation.

Another supplement that is often discussed in the context of joint health is **curcumin**. It is the yellow, bioactive compound found in ginger and turmeric (the spice used frequently in Asian cooking).

Curcumin is said to have anti-inflammatory properties (much like fish oil) and also anti-carcinogenic benefits too. It may also improve your cholesterol levels, insulin sensitivity and cognitive ability too.

In a group of 50 older adults suffering from osteoarthritis, 200 mg of a curcumin blend taken for 12-weeks has been found to decrease physical performance, joint pain and inflammation [10].

Curcumin is thought to have quite poor bioavailability though, meaning that even at high doses your body struggles to take much of it on board. Strangely, black pepper helps to boost its takeup and therefore is a recommended you take them together as a supplement 'stack'.

The bottom line when it comes to supplements for joint health is that you have to be patient on not expect wonder results overnight. The research appears promising if you suffer from osteoarthritis or knee pain but also bare in mind that in the grand scheme of things, these supplements are only studied in detail in a handful of reliable clinical trials.

Supplements to combat muscle weakness and improve recovery

Regular bowls playing can take its toll on not only your joints, but your muscles too. It is important that you speed up muscle recovery as much as possible so that soreness doesn't impair daily tasks.

This would be particularly relevant if you played on a regular basis.

Vitamin D has been shown to speed up muscle recovery in a number of clinical trials, ranging from elite athlete populations to older adult, general population participants. This supplement is available as either D2 or the more bioavailable D3.

In one study, the 'sunshine vitamin' as it's called (because it's produced by your skin when you're out in the sunlight) was found to improve cardiovascular fitness, muscle recovery, strength and power production too [11].

The study recommended a dosage of 2000 IU per day of the more bioavailable D3 to optimize physical performance. Some studies show that higher doses of up to 4,000 IU may also be beneficial too.

With regards to older adults, one study suggested that poor muscle function and increased weakness in the proximal muscles (muscles nearest to the midline of your body) is likely to be down to a deficiency in vitamin D, which is particularly common in older adults [12]. In fact, it is so common that in the study, as many as 36% of men and 47% of women had serum vitamin D levels below the lower-than-sufficient threshold of 30 nmol.L.

Low vitamin D levels have also been associated with sarcopenia too, so not only does this supplement help boost recovery and function, it can also help preserve muscle mass as well.

Vitamin D has also been shown to offset the loss of bone mineral loss associated with ageing (so can be linked to a reduction in osteoporosis risk).

And more for the men amongst you – vitamin D stimulates testosterone production too. And because testosterone is an important regulator of health, endurance and strength but naturally begins to decline after the age of 30, this is another important benefit of taking this supplement.

Supplements that improve lean mass and strength

As well as vitamin D, there are a small number of other supplements you should consider if your goals is to improve your strength or muscle mass for bowls.

The first one – **whey protein** – is often thought of as an all-out bodybuilder supplement. You think of someone chugging a protein shake

and they've got rippling muscles and jacked arms.

But there's much more to this milk-derived supplement. Much more.

As we've already mentioned, one of the biggest concerns for older adults is the loss of muscle mass due to sarcopenia. And without a proper way of offsetting the loss of functional tissue, you're more likely to suffer a fall-related injury, from metabolic disorders and even early death.

Recent research has shown that consuming whey could be a potent tool in the war against muscle loss, with one study suggesting that consuming 20-30 grams of protein per meal is effective in enhancing the muscle protein synthetic response in elders – this basically means that it helps your body make new muscle cells [13].

And another comprehensive study even suggested that whey protein could be a 'magnificent' strategy for older adults who wish to maintain their muscle mass and strength [14].

Another supplement that has been associated with significantly boosting muscle mass and functional strength is **creatine monohydrate**. This naturally-occurring substance found in foods such as red meat and fish helps your body make energy, improves high-intensity exercise performance and also indirectly increases muscle mass too.

As you age your body naturally begins to store less creatine, making it more so important to supplement it. A study from 2016 found that when a group of older adults used 5 grams of creatine per day for 12 weeks their lean mass increased [15]. And another found that when 60 older, vulnerable women, were given creatine over a longer 24-week period in conjunction with exercise, both their muscle mass and strength went up significantly [16].

And in the study, even the women who didn't take part in exercise but still used creatine saw a small, but still useful 0.3% increase in strength – helping them improve their functional capacity.

Used by everyone from athletes to those suffering cognitive disorders, creatine is a cheap and easy way to offset muscle mass and as such, boost performance and strength.

Supplement Stacks

And as a final note, what happens when you mix together some of the supplement we've already talked about in this section of the guide? Big increases in muscle and strength, that's what!

In a very recent randomized control trial [17], 49 men aged on average 73 years old were given a stack of supplements. These included:

- 30 g of whey protein
- 5 g creatine
- 500 IU of vitamin D

There were also a couple of other ingredients too – fatty acids and calcium for example. The men took the stack twice a day for 20 weeks in combination with exercise and had their strength and muscle mass measured both before and after this intervention period.

So what were the results?

The men all gained strength and we're able to increase their maximal lift by 14 kg on average. They also put on a significant amount of muscle too – 1.2 kg.

What does this mean for you?

If you want to be the strongest, most muscular bowls player to have ever graced the lawns you should consider these supplements. This multi-ingredient nutritional supplement increases both physical performance and lean body mass.

Bowls and physical health – exercises to improve performance and reduce injury

A large part of being able to play bowls at any age is keeping your muscles strong and your joints healthy.

Staying healthy fit and well means you can spend more time playing the sport you love. It also means that if you're performing better you've got more chance of winning. And everyone loves to perform well and win.

Although it's not the most aggressive of sports, bowls is still an important tool to keep yourself in shape. But you also need to know the risks involved in playing as well – that way you can plan strategies to avoid them.

Bowls injuries

In a rigorous statistical analysis of lawn bowls, research showed that from all bowls-related injuries, falls, trips and slips accounted for 54%, sprains and strains from overexertion came in at 28% and being hit with a bowl was a thankfully low 18% [18].

And although no sport will ever be injury free, there are ways in which you can reduce the risk of incidences such as sprains and strains with clever exercise programming.

Bowls can be played at any age. But it can't be played if you're struggling to move or in pain – or certainly it can't be played and enjoyed anyway.

That means that it's important to think about areas where you might want to improve or adjust to help yourself play better – and to keep healthy and avoid injury.

How can you stay fit and healthy – tips for bowls players of any age

Lower body – fixing aches and pains in your ankles/knees/hips and improving poor range of motion

We've already seen through our detailed look at supplements that many older sports players can suffer from knee pain, lower body weakness and aches and pains in their joints.

As a bowler you spend a lot of time kneeling into a shot, using your thigh strength to maintain position and essentially a lunge technique to regain your standing position after you've nestled in right beside the Jack.

But if your thigh strength, knee and ankle mobility or your co-ordination are not working properly, you'll soon find you can't get in position. And that means poor shot after poor shot.

Lower body exercises to improve mobility and strength

#1. A simple exercise such as a 'sit-to-stand' is a great way of boosting thigh strength in a safe and controlled manner. You can either do this as a structured home workout or even just try to stand without using your arms for assistance each time you get up from the dinner table, sofa or toilet.

#2. Stair walking is another great exercise – not only for strength, motor skills and knee/ankle/hip mobility, but for cardiovascular endurance too. You can set 'workout alarms' each couple of hours where you have to do say 5 stair walks, Or you can avoid taking the lift each time you go to the shops as a way of forcing yourself to take the stairs.

#3. Walking is probably not the first exercise you think of when you're planning a strength and mobility program, but it's a great test for your

lower body muscles to work together in unison. It's also great for burning calories and getting your heart rate up too. And because older adults with knee issues don't tend to fare so well in timed walk tests, this is a great way to keep yourself in tip-top condition compared to your peers.

And we're not talking about necessarily going out for a mile-at-a-time walks either. Even 200-400 meter walks at a quick pace with rest breaks work wonders.

#4. Static lunges are the most versatile lower body exercises there is. They're also most near to the actual movement pattern of bowls too so have some great transference benefits too.

The beauty of practising lunges away from the green and without having to make an actual shot is that you can focus more on the movement – keeping your back straight, feeling the right muscles and of course improving your coordination are all beneficial. And the chances are that when you do bowl you'll always lead with the same leg, so lunges gives you an opportunity to get rid of any imbalances by working on both sides independently.

#5. If you've got access to the gym then a good strength training program for your lower body will help to keep you performing well and help your muscles support your joints. As well as lunges and sit-to-stand movements, leg presses, cycling, leg curls and the rowing machine are all easy to use and provide fantastic benefits.

Wrists and fingers – keeping your hands supple to improve bowls technique

You might have noticed that out of all of your joints, your hands were the first ones to suffer.

Being able to hold your bowl in the correct position can mean the difference between a winning shot and a bad bowl. If your grip strength isn't what it used to be, your bowl arm just won't do what you want it to, or that mild arthritis just won't let you play pain free then your performance will most definitely go downhill.

Wrist and finger exercises to improve mobility and strength

#1. Wrist mobility movements are essential. They keep the joint supple and help your fingers maintain normal range of motion too. You can do a mini routine too which you can add to and adapt each day:

- 10 flexions and extensions – moving your wrist towards the underside of your forearm and then back as far as you can comfortably go.
- 10 side to side movements – as though you were waving, move your thumb to the side and then your little finger to the other side.
- 10 rotations – hold your hand out in front of you and rotate your wrist as though you were holding the underside of a bowl and then rotate back as though you were going to pick something up from a table.
- 10 fist grips – make a fist that's not too tight but build up tension in your forearm. Release after 5 seconds and go again.
- Alphabet shapes – make a fist with both hands and then point your first fingers out. Trace the letters of the alphabet (or even names of family members or favourite words) in the air, making sure you use a full range of motion. Once you've done this, do the same with your second fingers, then your third and so on.

#2. Hand strengthening exercises are only limited by your imagination – from pinching, to gripping, anything that uses your fingers and wrists is going to keep your hands working properly. Even everyday activities such as carrying your shopping bags or opening jars is going to strengthen your forearm muscles.

#3. Elastic bands are great to use during your mobility and strength exercises as you can vary the thickness and size of them to make them more or less challenging. Wrap them around your fingers and just play

around with them – there are no rules, only that you try and use all of your fingers and you stop when you are feeling or tired.

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