



THE BENEFITS OF PRACTICING PICKLEBALL ON HUMAN HEALTH

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Abstract:

Pickleball, a sport founded in the United States in 1965, was recently introduced to Vietnam in 2018. Since then, it has rapidly developed and spread throughout the country, and is currently one of the most popular sports in Vietnam. Besides developing coordination and reaction speed, the sport can also be used as an effective means of physical education. In this article, we will examine why pickleball is an ideal sport for physical development and how it can be used as a tool to improve health and develop good habits for participants.

Keywords: Pickleball, training, skill, health, physical education

1. Introduction

In this article, we aim to provide those who have not yet participated in Pickleball, as well as those who have played or are currently playing Pickleball, with a more comprehensive overview of the benefits and effects of Pickleball on physical development.

Pickleball is a sport enjoyed by many in the United States because the US is the birthplace of the sport. Founded in 1965 in Washington State, it has been developing for over 60 years, and according to the "Global Pickleball Report," there are currently 22 million people participating in and practicing it across the United States. This shows that it is a sport with great potential for developing physical fitness.

The popularity of pickleball is increasingly evident worldwide. According to the "Global Pickleball Report," it is predicted that the number of players globally will surpass 100 million by 2026. This is because it is an easy-to-play sport, considered a combination

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of table tennis, badminton, and tennis. With a playing surface similar to a badminton court, men and women, young and old, can play together, utilizing techniques from table tennis, badminton, and tennis. It's a sport that doesn't require overly difficult techniques. Physical activity is an indispensable aspect of physical education, playing a crucial role in training the younger generation for comprehensive development and personality perfection. It contributes to achieving the national goal of "*raising intellectual standards, cultivating human resources, and training talents*," enabling every citizen, especially the younger generation, to "*develop intellectually, become physically strong, spiritually rich, and morally upright*." To meet the increasingly demanding needs of the country's industrialization and modernization, and to maintain and strengthen national security and defense, the role of physical education cannot be underestimated. In Vietnam, pickleball is a relatively new sport with high entertainment value, making it a popular choice for many to practice and improve their health.

Today, many people understand the importance of physical activity and strive for a healthy lifestyle. Women prioritize aerobic exercise, walking, and swimming. Conversely, men prefer football, martial arts, and gym workouts. Pickleball is a relatively new sport suitable for both men and women, making it a popular choice for both genders seeking to improve physical attributes such as strength, speed, endurance, flexibility, and dexterity.

2. Content

Pickleball is one of the most popular and enjoyable sports in recent years, offering both health benefits and entertainment. It's important to note that those who practice pickleball must demonstrate not only physical fitness but also coordination skills, intellectual abilities such as reflexes, concentration, and teamwork. One of the main principles of pickleball is the coordinated movement of hitting the ball along with teamwork. Each player must understand their role and position on the court, especially in doubles where two players must work together effectively to achieve the best results. Besides strategic thinking and good teamwork, physical preparation is also crucial in pickleball, as players need to be strong, resilient, agile, and have quick reflexes.

Pickleball is a type of intermittent exercise that connects the bones, joints, and muscles of the entire body. Practicing pickleball can prevent calcium ion loss in human bones, making them stronger, improving bone density, and making them harder and less prone to fractures. The continuous movement of the body's joints during pickleball practice makes them more flexible, expanding the joint surface area of localized areas and increasing the range of motion and flexibility of the joints. Regular pickleball practice can also train overall muscle activity and strength, reduce body fat accumulation, increase muscle endurance, and improve body shape.

The entertainment value of pickleball is one of the important factors influencing the development of popular sports. Currently, the demand for recreational sports is very high, therefore pickleball is considered a sport chosen by many people for practice. The entertainment value of pickleball is demonstrated in techniques such as dribbling,

driving, lobbing, volleying, smashing, flicking, dropping, movement, and coordination with teammates on the court, etc. In pickleball training, practitioners not only achieve physical fitness but also provide visual enjoyment. When performing beautiful technical movements, effective attacking shots, or spectacular saves, practitioners feel successful, happy, and joyful. At the same time, they can also earn praise and affirmation from those around them, which reinforces their pride.

Currently, some educational institutions have incorporated Pickleball into their curriculum to provide physical education for students. Pickleball is considered an elective course, offering learners the opportunity to improve their physical abilities, develop playing techniques, enhance self-esteem and confidence, and improve their overall health. Creativity, dynamism, proactiveness, teamwork, perseverance, and patience are essential personality traits that Pickleball players must possess to achieve their goals.

2.1 Health Benefits of Playing Pickleball

2.1.1 Improved Cardiovascular Health

Pickleball is an effective cardio activity that improves cardiovascular health. During play, heart rate increases, supporting blood circulation and delivering more oxygen to the body. This helps players control blood pressure and reduce the risk of cardiovascular diseases such as hypertension and coronary heart disease. A study published in the journal *Science & Sports* showed that pickleball burns more calories than walking for the same amount of time, with a 36% increase in calorie consumption. This increased heart rate and energy expenditure contribute to the effective and sustainable improvement of cardiovascular health for players.

2.1.2 Helps with Weight Loss and Calorie Burning

One of the most noticeable benefits of playing pickleball is that it helps with weight loss and burns a significant amount of calories. In each match, which lasts about an hour, players can burn between 400 and 600 calories, depending on the intensity and style of play. This makes pickleball an ideal choice for those who want to maintain their physique or improve their weight. By combining cardio and focusing on major muscle groups, players can reduce excess fat without engaging in overly strenuous exercises.

2.1.3 Improved Muscle and Bone Strength

Improving muscle and bone strength is one of the top health benefits of pickleball. Pickleball requires full-body movement. The quick movements, sudden changes of direction, and jumping help the body generate force, bounce, and tension that benefits muscles and bones, thereby strengthening and increasing bone durability. Playing pickleball regularly can also prevent osteoporosis, making bones stronger and reducing the risk of fractures, especially in older adults.

2.1.4 Reduced Risk of Injury

Compared to other sports like soccer, basketball, or even tennis, pickleball has a lower risk of injury. With a smaller court and a slower pace, pickleball doesn't require strong collisions or high-speed running. This reduces the risk of muscle and joint injuries, especially for older adults. The movements in pickleball are generally gentle and don't put too much pressure on the joints, allowing players to participate safely without worrying about injury.

2.1.5 Improved Balance and Coordination

Balance and coordination are essential skills in pickleball, helping players perform movements and hits more nimbly. As players constantly move on the court, changing direction and handling shots from various angles, their body balance is honed. Simultaneously, coordination between body and brain is enhanced, resulting in quicker reflexes in situations requiring sharpness.

2.1.6 Enhances Hand-eye Coordination

Pickleball requires players to constantly track the ball and react quickly to return it. This helps improve hand-eye coordination. This skill is not only important in sports but also has a positive impact on daily life, helping to improve reflexes and situational awareness.

2.1.7 Enhancing Brain Health

Exercising has been shown to improve brain function, including cognitive abilities and memory. Studies indicate that engaging in sports, especially pickleball, produces more endorphins – hormones that promote feelings of happiness and reduce stress.

2.1.8 Developing Communication and Social Skills

Another benefit of Pickleball is the opportunity to meet and connect with many people. Because Pickleball can be played in teams of two or four, players will frequently interact and communicate with teammates and opponents. This not only helps improve communication skills but also builds new relationships. Pickleball is especially often held in clubs or public areas where people can easily meet and make friends. Participating in a Pickleball community can help reduce stress and provide a sense of belonging – an important factor in improving mental health.

2.1.9 Increased Lifespan and Improved Quality of Life

Studies show that people who regularly play pickleball may live longer than those who are less active. Highly social activities, like pickleball, can even extend lifespan by nearly 10 years compared to those who don't participate. Pickleball is a perfect choice as it both improves physical fitness and promotes community bonding.

Some points to note when practicing pickleball:

- Warm up thoroughly before practice, always dedicating 10-15 minutes to warming up your joints (wrist, shoulder, knee, ankle) to reduce the risk of injury.

- Choose appropriate attire, prioritizing breathable sportswear and shoes with good grip for flexible movement on the court.
- Use standard rackets and balls, choosing a racket suitable for your strength and skill level, and a competition-standard ball to improve your feel when hitting the ball.
- Master the basic techniques, focusing on techniques such as serving, returning, driving, volleying, and ball control.
- Pay attention to posture and movement, keep your center of gravity low, and move flexibly to react quickly and minimize loss of balance.
- Adhere to the rules of the game, understand them thoroughly, especially in the "kitchen" (non-volley zone) to avoid fouls.
- Control your hitting power; don't overuse force. Technique and strategy are more important than brute strength.
- Maintain a steady breathing rhythm; even breathing helps maintain stamina and focus throughout the practice session.
- Enhance communication during doubles play; communicate clearly with your partner to avoid conflicts and improve coordination.
- Drink enough water; replenish fluids before, during, and after practice to avoid dehydration, especially in hot weather.
- Listen to your body; if you experience excessive pain or fatigue, rest to avoid serious injury.
- Train regularly, maintaining a reasonable training frequency (2–4 sessions/week) to improve skills and fitness.
- Combine physical training with endurance, reflex, and flexibility exercises to improve performance.
- Maintain sportsmanship, respect opponents, referees, and teammates, and build a positive training environment.
- Ensure the safety of the training ground; check the surface, lighting, and surrounding space before training to minimize risks.

3. Conclusion

Pickleball is a modern, comprehensive sport suitable for a wide range of individuals of different ages, genders, and fitness levels. Analysis shows that participating in pickleball training not only enhances physical attributes such as strength, endurance, speed, and flexibility, but also significantly improves cardiovascular health, the musculoskeletal system, and motor coordination. Furthermore, it's a form of exercise with a suitable intensity and low risk of injury, allowing for long-term training.

Beyond physical benefits, pickleball also offers positive value to mental health and social life. Participating in training and competition reduces stress, creates excitement, boosts optimism, and develops communication, cooperation, and community bonding skills. These are crucial factors contributing to a better quality of life and a healthy, positive lifestyle.

In particular, in the context of current physical education, pickleball can be seen as an effective means of diversifying teaching content in schools. Introducing this sport into the curriculum not only helps students develop physically but also fosters qualities such as discipline, perseverance, and sportsmanship.

However, to achieve optimal results, participants need to adhere to safe training principles, focus on basic techniques, and maintain a reasonable training frequency. Overall, pickleball is a suitable choice for improving overall health and developing the sports movement in the community today.

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Conflict of Interest Statement

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