National Task Force on Pickleball Noise

Updated August, 2026

Research and Facts

Benefits of Pickleball

Pickleball offers players a fun way to stay active while connecting with others. The game is easy to learn, inclusive, and provides low-impact exercise that benefits heart health, balance, and strength.

***1. Wildly popular**, pickleball continues to expand with more than 4000 new locations and more than 18,000 new courts in 2024. The benefits are clear--It provides healthy activity and social community for the players (1).*

***2. Pickleball helps create social connection.** Relatively easy to play on a small court, the game allows people of all ages and skills to play together, creating friendships and a strong sense of community. Regular play helps reduce loneliness and helps improve mental well being with social connection, and laughter (2,3).*

***3. The game is inclusive, accessible** and also encourages intergenerational mixing. For some, it provides a sense of purpose (especially post-retirement) with regular schedules and opportunities for mentoring.*

***4. Pickleball also provides healthy exercise** that improves heart health, balance, coordination, and strength while being easier on the joints than many court sports. The small court and doubles format keep players moving without excessive strain, making it accessible for a wide range of ages and fitness levels. And because it's fun and social, people tend to play regularly, which helps them stay active and maintain overall physical health (4).*

1. USA Pickleball, 2025
2.Pickleball and Social Isolation, Kurth 2025
3.Pickleball and Mental Health, Cerezuela 2023
4.Pickleball and Physical Health, Stroesser 2024

Acoustics

Pickleball noise goes beyond how loud a few pops sound to us. The impact is largely driven by the high number of sharp, impulsive pops that accumulate over time.

1. Measuring pickleball noise can be tricky. *There are several components to consider.*

2. Pickleball is impulsive *. Each pop is very short and loud, lasting less than 0.02 seconds (20 milliseconds). Studies show that impulsive sounds are more annoying than steady state noise and that an automatic physical stress response occurs after just 50 minutes of exposure. For these reasons, acoustic professionals recommend that pickleball noise, like other impulsive noise, is given an extra 5–12 decibel penalty for its impact (1,2,3,4).*

3. Pickleball is repetitive*. A busy set of four pickleball courts can create 30,000 pops/day. One tennis match creates about 500 impacts. (This assumes 5 hits per rally, 100 points per match). Research shows the more times a noise happens, the more people are affected by it (5,6).*

4. The pitch of pickleball pops *(about 1000-1200 Hz) catches our attention. Our brains are wired to notice that pitch or frequency—this is why vehicle alarms use that range and why pickleball pops are so noticeable (7).*

5. Long term exposure is a problem. *Eight in 10 surveyed neighborhoods are exposed to more than 50 hours of pickleball noise per week. Although it is commonly believed that people get used to noise over time, research shows that long-term exposure can actually make some noises more bothersome (8.9).*

6. Pickleball is <u>at least</u> four times louder than tennis. *Sound studies estimate the pops are roughly 20-30 decibels louder than tennis. Because decibels are logarithmic, every 10-decibel increase roughly doubles the perceived loudness.*

7. Accurate measurements of decibels are important. *Decibel measurements should indicate the distance from the source and the averaging time period used. The pickleball pop lasts a very short time; if the measured sound level is averaged over a longer time period, the reading will be falsely low. (See Recommendations for more information).*

8. Lowering the sound level *may not always resolve the issue after long term exposure to persistent, unpleasant noise. This may help explain why sound barriers may not work very well for people already exposed to the noise . Even quiet sounds, like a dripping faucet, can become extremely irritating when they repeat over and over (10).*

1. Centennial, CO report, Spenderian and Willis, 2023
2. Penalty for Impulse Noise, Rajala, 2020
3. Impulse Noise and Stress Effects, Radun, 2022
4. Penalty for Pickleball Impulse Noise, Storm, 2024
5. 79 Sound Studies Analyzed, Leahy, 2024
6. Number of Events/Annoyance, Quehl, 2006
7. SAE Auto Engineering Labs
8. Pickleball Survey of 264 Communities, Romito, 2025
9. Longer Noise Exposure Increases Sensitivity, Lefevre, 2020
10. Lower Sound Levels May Not Help, Genuit, 2018

Human Impact

Neighbors are reporting serious health concerns related to chronic pickleball noise. Many are also reporting severe disruption to their lives at home.

1. Pickleball noise can be heard inside *nearby homes. A survey of 264 communities with pickleball courts found that almost 3 out of 4 residents living near courts could hear the sound inside their homes. When people can hear noise inside their home, it has a greater impact (1,2).*

2. Residents are not able to enjoy being at home*. More than 8 in 10 surveyed neighbors report that they are frequently or always unable to converse, concentrate, or find peace in their homes because of the pickleball noise. Some report leaving their homes for hours at a time when people are playing. When daily activities are affected, the human impact from noise is much greater. (1,2)*

3. Pickleball noise is creating health concerns. *Chronic noise exposure can increase the chances of heart disease, sleep disruption, memory loss, and mental health issues. This happens because chronic noise activates our unconscious fight-or-flight response, setting off a harmful cascade of events in our body (3,4).*

4. The health concerns are serious. *More than 9 in 10 surveyed neighbors reported having a health concern related to pickleball noise. Concerns include: severe psychological distress,*

disturbed sleep, trauma and PTSD-like reactions, and hearing phantom “pops" when no one is playing. A few people have reported suicidal thoughts related to the noise. These concerns suggest that the unconscious stress response to the sound is turned on to a high level, without an "off button" (1,4).

5. People are having to move *because of the impact of the noise. About half of surveyed residents reported having to move or wanting to move because of the noise (1).*

1. Pickleball Survey of 264 Communities, Romito, 2025
2.ISO/TS 16755-1. "Acoustics — non-acoustic factors influencing the perception, interpretation and response to environmental sounds — Part 1: Definition and conceptual framework" (ISO, Geneva, Switzerland, 2025).
3. Noise as Health Hazard American Public Health Assoc. Statement, 2021
4.Health Effects from Pickleball Noise, Romito 2025

Community Impact

Pickleball noise can strain municipal resources, drive social conflict, and harm neighbors, with even greater impact on vulnerable populations.

1. Pickleball noise complaints require valuable municipal resources: *time, personnel, and money. Pickleball is now recognized as the number one trend requiring attention from Parks and Recreation departments across the country. City and town councils are devoting hours to contentious public hearings. Municipal legal teams are increasingly pulled into the fray; reportedly there have been more than 200 cases across the US (1,2).*

2. Chronic noise can be particularly harmful for certain groups *of people. It affects how well children learn in school and can cause agitation and lost sleep in people with dementia. Other vulnerable groups of people include the elderly, people working night shift, people with chronic illness, and people with certain cognitive or neurologic issues like autism. 90% of surveyed neighbors said they were concerned that pickleball noise could be harmful for veterans or people with PTSD (3.4.5.6.).*

3. Pickleball noise is causing conflict between players and neighbors*. More than 4 in 10 surveyed neighbors report actually being harassed for raising concerns about the noise. And more than 7 in 10 reported being afraid of being harassed. This conflict increases how neighbors are impacted by the noise and can require police and municipal resources to resolve (6,7).*

4. Poor communication between local decision makers and affected neighbors *contributes to how noise impacts the neighbors. Communities report being ignored, losing trust, and having their concerns minimized by leaders. This can lead to more stress and also more conflict (7). For example, when one Parks and Rec leader told a group that "their petition just did not matter to him", it increased anger, broke down trust, and eventually led to a successful lawsuit against the City (8)..*

1. Trends in Parks and Recreation, Jan 2026, p 36
2. Hillsborough County Commission, Josh Wostal 1:49:36
3. Noise and Children/Learning, Bronzhaft, 1981
4. Noise and Dementia, Janus, 2021
5. Vulnerable Populations, Van Kamp, 2013
6. Pickleball Survey of 264 Communities, Romito, 2026
7. Non Acoustic Factors in Pickleball Noise, Knudson, 2025 (in press)
8. Dougherty v. Boise 2025

Facts about mitigation

Adequate setbacks between courts and homes are the most effective way to prevent conflict and harm to neighbors. Sound barriers, limiting hours of play, and quiet racquets/balls often fall short.

***1. Setbacks**: Adequate setbacks are the only tool shown to effectively address the noise impact on neighbors.*

Early guidance, based only on sound levels (2023), recommended not placing courts within 100 feet from homes, even with sound barriers. When acoustic professionals began to account for the human impact of impulsive noises (2024), they recommended at least 250 feet of setback. As recent research increasingly shows harm occurring up to 1000 feet away (2025), health professionals and many cities are recommending larger setbacks.

Recent research shows most concerns are from neighbors within 500 feet, though some residents up to 1,000 feet away still report serious problems, even with sound barriers in place.

Larger setbacks may also be needed where terrain carries sound—such as valleys or water—or near multi-story homes or where courts are located near schools, hospitals, or homes for older people. (1,2,3,4,5).

***2. Sound barriers:** Mass-loaded vinyl barriers—(e.g. Acoustifence, Acoustiblock) have quickly become a popular choice and they perform well in indoor lab tests. However, currently, research shows that they do not reduce the impact of the noise on neighbors. But they appear to work less well in the real world.*

Almost 90% of surveyed neighbors from 40 communities, living from 10-1000 feet from courts with thick vinyl sound barriers, reported the barriers did not help. Noise can travel over or around barrier edges and barriers do not address the repetitive or impulsive popping characteristics of the noise. (1,4).

***3. Quiet racquets and balls:** Although USA Pickleball has "quiet" equipment categories, the criteria for classification are not publicly available. Some of the "quiet balls" are noted to produce 81 db of sound on their website.*

Early research suggests that recommending use of quiet balls and racquets xxxxx Some neighbors report improvement specifically with the Librarian foam ball and OWL paddle and this combination has worked at two sites within 100 feet when strictly required and enforced. (Eisenhower, Denver and a private HOA). But, when no one is enforcing the use of quiet racquets and balls, most players continue using louder equipment. (5,6,7,8).

4. Shorter hours: *Research shows that limiting open hours at the courts does not resolve the concerns. Social conflict between players and neighbors increases and neighbors are still challenged by the noise in their homes for many hours per week.(1,4).*

1. How To Reduce Pickleball Noise, White Paper, National Task Force 2026
2. Mitigation Pickleball Noise, Weyerman, 2023
3. Centennial , CO report, Spenderian and Willis, 2023
4. Pickleball Survey of 264 Communities, Romito, 2025
5. Managing Pickleball Through Zoning, Leahy, 2025
6. USAPickleball: Quiet Category Equipment, accessed March 3, 2026
7. USAPickleball: About Equipment Evaluation, accessed March 3, 2026
8.Pickleball Noise Relief Facebook group