

Whole Body Vibration (WBV)

A guide to maximizing sensory regulation at home



Intervention Focus: Whole Body Vibration (WBV) for sensory regulation, postural control, and functional participation.

This home program incorporates the use of a whole body vibration plate as a therapeutic tool to support sensory processing, motor development, and functional engagement. WBV provides combined proprioceptive, vestibular, and neuromuscular input to help improve body awareness, strength, coordination, and regulation.

Why Use Whole Body Vibration (Benefits):

Whole body vibration delivers rapid, controlled sensory input that helps organize the nervous system and prepare the body for movement and learning.

- Improves body awareness (proprioception): Enhances understanding of body position in space, supporting coordination and motor planning
- Enhances postural control and core strength: Automatic muscle activation supports stability and endurance
- Supports sensory regulation: Can be calming or alerting depending on how it is used
- Improves attention and readiness: Helps increase focus and participation in tasks
- Promotes coordination and balance: Supports bilateral coordination and dynamic stability
- May assist with reflex integration: Encourages more efficient and organized movement patterns
- Increases circulation: Supports overall movement efficiency and endurance

General Guidelines:

- Frequency:
 - ~10–15 Hz for calming/regulation, up to ~20 Hz for activation as tolerated
 - Typically only use levels 1-10 but mostly level 1
- Duration:
 - 20–30 seconds per activity
- Total use:
 - Typically no more than 3–4 minutes total for pediatric sessions
- Repetitions:
 - 2–5 with rest breaks
- Start low and progress gradually
- Always allow child to stop when needed



Important Caregiver Guidance:

Whole body vibration is not a passive or “set it and forget it” activity. The greatest therapeutic benefit occurs when it is:

- Actively supervised
- Adjusted in real time based on child’s responses
- Paired with functional, play-based activities

Simply standing on the plate passively is less effective than engaging in movement such as reaching, squatting, playing games, or completing tasks.



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Functional Integration:

Use the vibration plate as a preparatory activity to improve success with:

- Fine motor tasks (writing, dressing, feeding)
- Schoolwork or seated attention tasks
- Daily routines requiring regulation, coordination, or focus

Suggested Activities:

Incorporate play-based, child-led activities to maximize engagement:

- Standing Activities:
 - Reaching, tossing/catching a ball, or simple balance games
- Core & Strengthening:
 - Squats while picking up toys
- Plank (hands on plate)
- Crossing Midline / Coordination:
 - Cross crawls (opposite hand to knee)
 - Infinity loop or figure-8 tracing
- Visual-Motor Integration:
 - Balloon volleyball
 - Catching, throwing, or tracking objects
- Seated Options (Lower Intensity):
 - Sitting on a stool/therapy ball directly on the plate
 - or placing feet only on the plate during tabletop tasks



Precautions & Close Monitoring:

Whole body vibration requires active supervision and continuous monitoring. Caregivers should observe both physical and behavioral responses throughout use.

- Watch for dizziness or nausea
 - Stop immediately if child appears pale, unsteady, or reports feeling sick
- Monitor fatigue
 - End the activity if there is excessive fatigue, weakness, decreased participation, or poor form
- Check body position before starting
 - Ensure stable hand/foot placement and proper alignment prior to turning the plate on
- Keep sessions short
 - Use for 30–60 seconds per activity, with a maximum of 3–4 minutes total
- Provide close supervision
 - An adult should remain within arm's reach, especially for younger children
- Stop if pain is reported
 - Discontinue immediately if child reports pain or discomfort
- Offer regulation breaks
 - Turn off the plate and allow breaks if signs of overstimulation occur



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Signs of Overstimulation to Watch For:

Monitor closely for signs the nervous system may be overwhelmed:

- Increased anxiety, fear, or hesitation
- Hyperactivity, silliness, or loss of control
- Irritability or emotional dysregulation
- Withdrawal or shutdown behaviors
- Attempting to escape or avoid the activity
- Difficulty maintaining position or attention

If these occur:

- Stop the activity immediately
- Provide calming input (deep pressure, slow movement, quiet break)
- Adjust future sessions (lower intensity, shorter duration, more support)



Additional Safety Considerations:

- Always begin at the lowest setting ("low and slow")
- Use supported or modified positions as needed
- Ensure proper foot placement (closer to center = less intensity)
- Never force participation
- Always follow with deep proprioceptive activities such as jumping, wall push ups, medicine ball slams, etc.

Potential Side Effects:

- Nausea and dizziness
- Quick drop in blood sugar level in diabetics due to high muscular activity
- Itching (especially lower legs) due to high muscular activity
- Friction skin lesions or blisters on contact surface (use proper footwear)
- Harmless and resolve when participation stops – could be too high of intensity

Contraindications (do NOT use):

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| • Seizure disorder | • Severe osteoporosis (fracture risk) |
| • Acute hernia | • Osteogenesis imperfecta |
| • Gallstones | • Recent surgeries or surgical implants |
| • Rheumatoid Arthritis | • Acute inflammatory conditions with infection or pain flareups |
| • DVTs or hx of blood clots | • Cardiovascular conditions such as high blood pressure, arrhythmias, recent heart attack |
| • Pregnancy | |
| • Fractures and healing bones | |

This program is designed to provide structured sensory input that supports regulation, motor development, and participation in meaningful daily activities. Consistent use, paired with active engagement and careful monitoring, will support the best outcomes.

Disclaimer:

These guidelines have been synthesized from multiple evidence-based research sources. Caregivers are encouraged to consult their pediatrician with any questions or concerns regarding the appropriate, ethical, and effective application for each individual child.

