



Empowering Children. Supporting Families. Building Brighter Futures.

Resource 045 | Sensory processing concerns

Sensory under-responsivity

What it means

Sensory under-responsivity describes a reduced or delayed response to some sensory information. A child may seem not to notice an ordinary cue, but the explanation must be assessed. This pattern is not the same as confirmed hearing loss, visual impairment, or reduced alertness from illness. [1]

Causes and risk factors

Sensory processing differences may occur with autism or other developmental conditions. Attention, fatigue, hearing, vision, pain perception, and neurological or medical factors can also affect responses. A pattern described as under-responsive does not independently identify a disorder or prove that a sense is functioning normally. [1,2]

General family education. A concern deserves assessment, but this guide does not diagnose a child or prescribe treatment.



Signs and everyday impact

Families may notice delayed responses to touch or sound, difficulty noticing position or movement, or needing clearer cues to join activities. Some children miss important environmental information. The same child can respond strongly to one kind of input and weakly to another. [1,2]

Assessment and diagnosis

The team examines when and where the pattern occurs, functional participation, development, and health. Occupational therapy assessment may include observation and caregiver questionnaires. Hearing and vision testing, or medical evaluation, is considered according to the concern. Episodes of unresponsiveness need a medical explanation rather than a sensory label alone. [1,2]

Treatment and therapy

Supports may include clearer multimodal cues, predictable routines, adapted environments, and occupational therapy focused on meaningful participation. Specific sensory-based methods have variable evidence and should be evaluated against clear goals. Treat identified sensory or medical conditions. More intense stimulation is not automatically a safe or effective solution. [1,2,3]

Support at home

Gain attention gently, combine an appropriate sound or visual cue with touch when welcomed, and allow response time. Keep safety cues accessible and supervise according to assessed needs. Avoid loud, startling, forceful, or painful input intended to make the child respond.

When to seek help

Sudden unresponsiveness, unusual sleepiness, suspected seizures, or reduced response to pain with injury needs prompt medical assessment. Difficulty breathing or reduced consciousness is an emergency.

Questions for your care team

- Could hearing, vision, attention, or medical factors explain the response?
- Which cues reliably support participation?
- How will safety and progress be assessed?



Podcast preparation

Use this outline to develop a later podcast script.

Suggested opening

Welcome to Mariel Early Intervention. Today we discuss sensory under-responsivity. Sensory under-responsivity describes a reduced or delayed response to some sensory information. This is general education; each child needs individualized care.

Opening: Define the topic and its developmental context.

Understanding: Explain causes and signs without inviting self-diagnosis.

Assessment: Describe evaluation and distinguish screening from diagnosis.

Support: Discuss treatment, therapy, and practical family supports.

Closing: Explain urgent signs and one clear next step.

Misconception to address: Appearing not to notice a cue does not prove that hearing and vision are normal.

Before recording: update clinical references and local service details, arrange clinical review, and use fully consented or fictional examples.

Terms in plain language

- Under-responsivity: a reduced or delayed response to input.
- Multimodal: using more than one sensory or communication route.
- Alertness: the state of being awake and responsive.

Sources and further reading

Sources accessed 3 October 2026. Numbered references support the clinical overview. Treatment availability and referral routes vary by country.

[1] Sensory Integration Therapy

<https://www.healthychildren.org/English/health-issues/conditions/developmental-disabilities/Pages/Sensory-Integration-Therapy.aspx>

[2] Sensory Integration Therapies for Children With Developmental and Behavioral Disorders

<https://publications.aap.org/pediatrics/article/129/6/1186/32067/Sensory-Integration-Therapies-for-Children-With>

[3] Hearing Loss in Children

<https://www.asha.org/practice-portal/clinical-topics/hearing-loss-in-children/>