

Self-Stimulating Behaviours

Definition / Supporting Information

Self-stimulating behaviours are head banging, rocking, thumb sucking, masturbation, nail biting, and hair pulling and twisting. Self-stimulating behaviours typically appear before 12 months of age and peak at age 2.5 years.

Essential History

Ask about:

- Timing and duration of symptoms
 - Head banging and rocking are most common at:
 - Bedtime (may continue when the child is asleep)
 - Times of fatigue or stress
 - Thumb sucking and nail biting
 - These habits are so common that an apparent association may be of no significance.
 - When a child is stressed
 - When a child is bored
 - In young children at bedtime, thumb sucking helps them fall asleep.
- Family history
 - Siblings of children who rock may exhibit similar or other rhythmic pattern disturbances.
 - Experience of maltreatment or care
- Hearing or sight impairment
- Emotional disturbance
- Severe intellectual disability
- Inactivity

'Red Flag' Symptoms and Signs

Ask about:

- Head banging and rocking
 - Movements may represent a compensatory reaction to lack of stimuli or the inability to integrate stimuli.
- Hair pulling and twisting
 - May indicate the presence of psychological stress

Look for:

- Dental malocclusion (thumb sucking)
- Cutaneous infections including herpetic whitlow (thumb sucking)
- Alopecia (hair pulling)
- Genital infection or irritation (excessive / persistent masturbation)
- Scars on forearms (self-biting or cutting)

Differential Diagnosis / Conditions

- Masturbation
 - Typically most common at 4 years of age and again in adolescence
 - Exclude:
 - Local genital irritation
 - *Candida* infection
 - Pinworms
- Anxiety or obsessive–compulsive disorder or depression
 - Investigate and refer appropriately if the patient engages in excessive:
 - Thumb sucking
 - Nail biting
 - Cuticle picking or biting
 - Skin cutting
 - Hair pulling
- Autism spectrum disorder, psychosis, or childhood schizophrenia
 - Body twirling or spinning
 - Hand or arm flapping
- Specific problems in severely intellectually disabled or emotionally disturbed children
 - Excessive rocking behaviour
 - Severe self-mutilating behaviours (eg, in Lesch–Nyhan syndrome, Cornelia de Lange syndrome)
 - Compulsive self-biting
 - Severe head banging
 - Skin gouging
 - Prader–Willi syndrome
 - Severe skin picking
 - These behaviours are part of a symptom complex in a severe disorder, in contrast to generally isolated behaviour disturbances in normal children.
 - The cause is generally linked to the basic disorder and may also reflect the lack, or disordered integration, of sensory stimuli.

- Child maltreatment
 - Consider emotional or sexual abuse (see Child maltreatment: when to suspect maltreatment in under 18s [[NICE clinical guideline CG89](#)])

Investigations

- Investigations are not indicated when self-stimulating behaviours occur in isolation.

Treatment Approach

To be undertaken by non-specialist practitioners (eg, General Practitioner (GP) Team):

- Most of these behaviours are self-limited to the pre-school period and are usually viewed as normal, common, and expected behaviours.
- These habits generally do not signify psychological maladjustment.
- They often require little intervention other than reassuring parents and suggesting adequate stimulation of their child.
 - Parents may require referral for parenting support.
- Head banging and rocking
 - Treatment is generally directed towards assuring the parents that:
 - These may be self-calming mechanisms for sleep in the very young.
 - The child will show no adverse neurological effects in later life.
 - Children who engage in head-banging behaviour usually grow up as completely normal, co-ordinated children.
 - Padding the crib and securing the bed to prevent rolling may help during the limited rocking behaviour or head banging.
- Thumb sucking and nail biting
 - Simple behavioural therapy (based on positive reinforcement) is often sufficient to alleviate the habit.
- Masturbation
 - Counsel parents about masturbatory practices and emphasise that masturbation is normal, harmless, and almost universal in children.
 - Consider emotional / sexual abuse if persistent and interfering with normal social activities.
- Hair pulling and twisting
 - Treatment may be indicated with a form of behavioural therapy because this can be a stress response or manifestation of obsessive–compulsive disorder.
 - Ask the child about worries, dreams, and what makes them frightened.

When to Refer

Refer to specialist practitioners (eg, Community Paediatric / Child and Adolescent Mental Health Services Team(s)) if:

- Head banging or rocking persists beyond the age of 3 years.
- There is preoccupation with self-stimulating behaviour to the point that it interferes with healthy social and emotional interaction.
- Accompanying symptoms, such as decreased socialisation or other behavioural problems suggesting anxiety, depression, or obsessive–compulsive disorder, are present.
- Tissue damage is present.
- The self-stimulating behaviour is in the context of learning disability or child maltreatment.

‘Safety Netting’ Advice

These self-stimulating behaviours typically appear before 12 months of age and peak at age 2.5 years. Subsequently, the behaviours decline rapidly. If concerns arise or behaviours worsen, further advice and support need to be sought. Advocacy may be needed in accessing services.

Patient / Carer Information

****Please note: whilst these resources have been developed to a high standard they may not be specific to children.***

- [What can I do about headbanging? \(12 to 30 months\)](#) (Web page), the NHS website

Resources

National Clinical Guidance

[Autism spectrum disorder in under 19s: support and management](#) (Web page), NICE clinical guideline CG170, National Institute for Health and Care Excellence

[Child maltreatment: when to suspect maltreatment in under 18s](#) (Web page), NICE clinical guideline CG89, National Institute for Health and Care Excellence

Medical Decision Support

[Child Sexual Abuse](#) (Web page), RCPCH Child Protection Companion

Suggested Resources

****Please note: these resources include links to external websites. These resources may not have national accreditation and therefore PCO UK cannot guarantee the accuracy of the content.***

[Simple conversations to keep your child safe from abuse: learn the underwear rule - For parents and carers of children with autism \(PDF\)](#), NSPCC

[Advice and support](#) (Web page), Contact

American Academy of Pediatrics, Committee on Genetics. [Clinical report – Health supervision for children with Prader-Willi syndrome](#). Pediatrics. 2011;127(1):195-204 [PubMed]

[Self-Stimulatory Behaviour](#) (Web page), Autism Research Institute

Acknowledgements

Content Editor: Dr Doug Simkiss

Clinical Expert Reviewer: Dr Angela Moore

GP Reviewer: Dr N Vimal Tiwari

AAP Reviewer: Jane Meschan Foy, MD, FAAP

Paediatric Trainee Reviewer: Dr Tatiana Hyde

Paediatric Specialty Group: [British Association for Community Child Health](#)

Update information

Created: 2017

Date last updated: -

Next review due: 2020