

# Sensory Circuits

## What are sensory circuits?

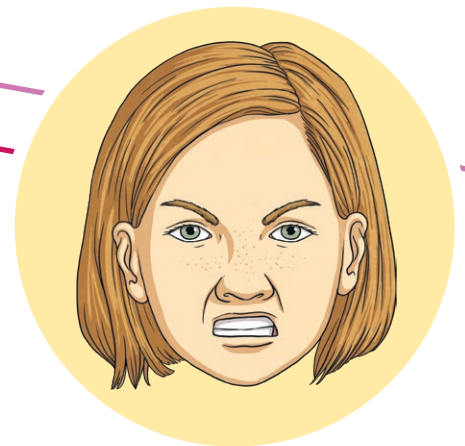
Sensory circuits are like circuits we might do in the gym. They are a sequence of physical activities that are either alerting, organising or calming. The aim of them is to facilitate sensory processing in order to ensure that the sensory system is running correctly to then be able to do activities in the classroom (or whatever is coming up next in a day). Sensory circuits should be physical, active and fun.

They can be a useful way to provide some sensory stimulus through physical activity to a child who may be seeking sensory input.

Sometimes, we all need a bit of sensory input to help us with our next task. For example, do you need to put on fast music to get on with the housework and slow music to help you sleep? Have a think about the activity below. There are no right or wrong answers - we're all different and we all need different kinds of sensory input.

## Activity

- What irritates you or gets on your nerves?
- What do you do to calm yourself when you feel anxious or on high alert?
- What makes you feel ready and raring to go?
- When you feel bored or tired, what do you do to get yourself going?



## Why are sensory circuits useful?

The inability to process sensory information is called sensory processing disorder (SPD). Children with SPD may struggle with daily tasks and they may over or under-react to sensory information from their body or from the environment. This may mean that they are not ready to learn or start their next task. If a child has difficulty processing sensory information, their brain produces a maladaptive response to the sensory stimulus. In other words, they may have difficulty adapting appropriately to a situation or task.

## Who are sensory circuits useful for?

Some children or young people may have a diagnosis like SPD, which means it is difficult for them to process sensory information from their body and the environment. Some children may have these difficulties but not have a diagnosis and may display sensory-seeking or avoiding behaviours.

For example, a child that does not like to be touched or engage in messy play may be avoiding sensory input, while a child that struggles to sit still and constantly fidgets may be craving sensory input.

These behaviours could indicate sensory difficulties:

- fidgeting
- poor coordination and balance
- rocking e.g. back and forth or side to side
- difficulty paying attention
- difficulty organising themselves

Differences in processing sensory information can impact significantly on learning, play, self-care and how a child feels and responds. Sensory circuits can help them by giving them the sensory input that they need in order to focus.

### How do I set up sensory circuits?

1. Record any behaviours you have observed in a child that indicate they may benefit from sensory circuits.
2. Set a goal for the child - try to set a physical goal and a behavioural or sensory goal. For example:
  - physical goal - improve balance
  - sensory goal - organise themselves more quickly
3. Pick your activities.

Plan your sensory circuits to include a sequence of activities that are done repeatedly. The order of activities is very important - start with alerting activities, follow with organisational tasks and finish with a calming option so that the child is in a settled state, ready to learn. Aim for two alerting activities, two organisational activities and one calming activity.

### Alerting section

These activities prepare the brain for learning. They activate the vestibular system and provide proprioceptive stimulation. The vestibular system is our sense of balance and proprioception is our sense of where our body is in space.

#### Activities can include:

- doing action rhymes, like 'heads, shoulders, knees and toes'
- spinning a hoop
- skipping
- jumping on a mini trampoline
- jogging
- hopping
- dancing
- swinging
- marching while touching opposite knee with elbow/hand
- bouncing on a space hopper or gym ball



### Activity

Try to touch your nose with your index finger while your eyes are shut. This is your proprioception working!

## Organising section

These activities use motor skills, balance and timing. The child will need to organise their body, plan their approach to the activity and do more than one thing at a time in a sequential order. This helps to increase focus and attention.

### Activities can include:

- balancing
- climbing
- using a wobble board while throwing and catching with a partner
- throwing to a target
- doing log rolls with arms stretched above the head and hands clasped
- blowing a lightweight ball towards a target
- completing an obstacle course
- jumping through hoops
- weaving in and out of cones

## How do I set up sensory circuits?

It is important to finish the circuit with calming activities that focus on proprioception and deep pressure activities so the child leaves the circuit feeling calm, focused and ready to get the best out of their next activity.

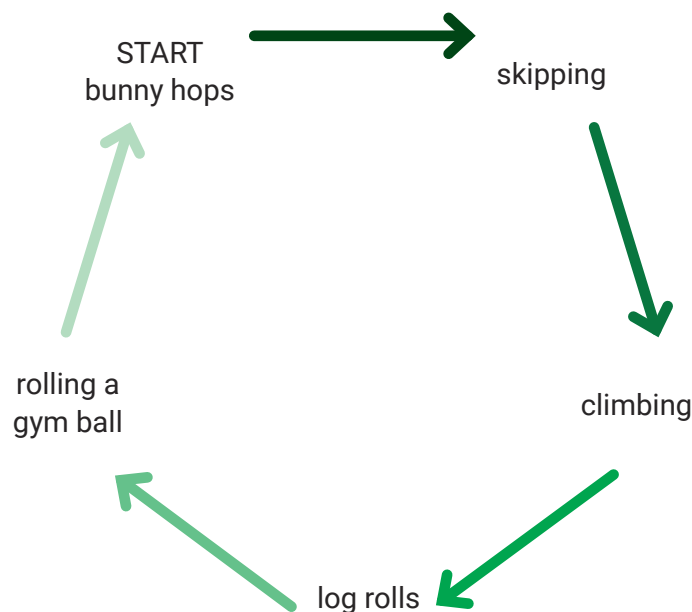
Deep pressure works by applying weight or pressure in order to provide proprioceptive input, which calms the central nervous system.

### Activities can include:

- rolling a gym ball over a child's back while they are lying on their front
- rolling the child up tightly in a blanket
- pushing against the wall with flat palms
- lying on the floor and pushing against the wall with your feet
- supporting the child to lie on a gym ball on their tummy and supporting them at the hips to rock forward and backwards (encourage them to actively rock forward and back and to bear weight through their hands and feet)

## Activity

Think about how you feel if you have a strong hug, are tucked up tightly in bed or are using a weighted blanket. Remember we're all different and we don't all enjoy hugging or being hugged.



### When should I use sensory circuits?

Sensory circuits can be used at the start of the school day or after lunch because they are a great way to get children settled so they can engage in the classroom. They can also be used after school or at home.

Sensory circuits should be done regularly and the circuit should take around 15 - 20 minutes, with three to five minutes spent on each section.

### What else do I need to know?

Remember that every child is different, therefore their sensory needs and tolerance for each activity will be different. Some children may benefit from spending more time with alerting, organising or calming activities to set them up for their next activities. Some children may need more circuits during the day. It's important that the activities reflect their sensory preferences too, and that you avoid any sensory stimulation that they do not like.

Children should be encouraged to take part in the sensory circuits and be supervised at all times.

It is possible to transfer techniques from sensory circuits to the learning environment to help support a child. Movement breaks within the school day could help a child to focus and learn. Ask your occupational therapist for suggestions and advice.

Sensory circuits are based on sensory integration, which was a theory developed in the 1960s and 70s by an occupational therapist and a psychologist working together to understand the neurological process that helps humans to process information from the body and the environment. Please ask your occupational therapist for more information.

Have fun and don't forget the goals you set - are the sensory circuits helping?

## References

NHS (2018). Sensory Motor Circuits - A Sensory Motor Skills Programme for Children. [online] Available at: <https://www.cambscommunityservices.nhs.uk/docs/default-source/leaflets---sensory-strategy-leaflets---april-2015/0218---sensory-circuits---info-for-teachers---april-2018.pdf?sfvrsn=8> [Accessed 26 November 2021]