



MANAGING TASTE AND SMELL DISORDERS TRAINING SUPPORT BOOKLET



Author: Dr Sophie Tempere

Contacts and further information: <u>lsvv-C19@u-bordeaux.fr</u> <u>sophie.tempere@u-bordeaux.fr</u>

This document is protected by copyright. You must seek permission from its authors before reproducing it, copying it, or disseminating it online or in paper form. The author may agree or refuse, and/or charge a fee for the copy or dissemination.



The aim of this booklet is to help you recover your olfactory abilities and sensitivity. It aims to guide you and encourage you to spend a few minutes a day practicing. We understand that it is not always easy to stay positive if you do not see regular improvements to your olfactory acuity, but do not forget that morale is important for completing these exercises under the best possible conditions and with the greatest attention you devote to them. Your chances of recovery will be much higher if you persevere.

This protocol combines the effects of two different types of olfactory exercise. This is due to the variety of causes for issues with olfactory perception, and therefore optimizes recovery prospects.

Exercise 1 - olfactory mental imagery

This type of practice should be begun as soon as possible after you notice a loss or reduction of your olfactory acuity.

The aim is therefore to build your capacity to imagine smells without access to the source of the smell. You are thus creating a sort of olfactory hallucination on demand. Practicing using olfactory mental imagery has been proven to be effective on specific perceptual deficits. Furthermore, it is acknowledged that when you create olfactory mental imagery, the activity in your olfactory cortex is similar to that measured when you actually smell the relevant odorant.

To practice this, choose a peaceful moment during your day. Creating an olfactory mental image is not a normal exercise, so can be made easier by closing your eyes.

<u>Choose a smell</u> that you remember particularly vividly. For example, you will find it easier to imagine:

- ✓ A smell linked to your childhood (sweets, your parents' perfume, etc.) that could be considered your 'Proust's madeleine'
- ✓ Smells linked to everyday activities (cooking, washing, etc.)
- ✓ Smells that you find particularly unpleasant

To <u>start creating an olfactory mental image</u>, act out breathing in the smell. The act of breathing in is an integral part of smelling, and this simple gesture activates certain areas of the bran linked to olfaction and gets us ready for perception. Another factor that can help you create an olfactory mental image is setting the scene. For example, to conjure up the smell of a lemon, imagine that you are in your kitchen about to slice the fruit.

You should experience the associated smell in your mind as clearly and realistically as possible. Keep it in your head for at least five seconds, not forgetting to breathe in.

It is important to practice this every day, and to focus on the same olfactory mental image for a good ten days. You can then try again with a new item in the days that follow.

To help you focus on the task at hand, answer the questions in the table below (copy the table as many times as you need)



Table for tracking the 'olfactory mental image' exercise (copy the table as many times as you need)

Date	Time	What smell were you trying to imagine?	Was the olfactory mental image intense? Rate it on a scale of 0 (no smell perceived) to 4 (strong)	Did you find this task easy or difficult? Rate its difficulty on the following scale: 1 (very easy), 2 (fairly easy), 3 (fairly difficult), 4 (very difficult)	Did you find the task easier than last time? (Yes, the same, no)



Exercise 2 - repeated exposure to essential oils

As well as practicing olfactory mental imagery, you can also **practice using repeated exposure to odorants**. The effectiveness of this kind of exercise has been widely proven in a clinical setting with patients experiencing general olfactory issues.

For this exercise, you will need to put together an odorant kit containing four essential oils that can be purchased from a drugstore. Select one essential oil from each olfactory family (fruit, flowers, spices, aromatic herbs). For example, choose a fruit (orange or lemon), a flower (rose, geranium, lavender), a spice, and an aromatic herb (clove, peppermint, eucalyptus, rosemary).

If you have the facility to do so, you can dilute these essential oils in an odorless vegetable oil as your sensitivity returns (as a recent study showed, the concentration can be left to the discretion of each person). If you dilute your odorants, replace them regularly. Handle the essential oils with care as some may be allergens, photosensitizers, or dermocaustic substances. Consult your doctor.

In agreement with your ENT doctor and as your recovery progresses, you could change the essential oils in your kit after three months and begin again with a new set of smells.

This practice using four essential oils is designed to be continued for three months.

Follow the protocol below for each odorant (essential oil):

- Choose a peaceful moment and smell the odorant (breathe in slowly and deeply for around 30 seconds).
- ✓ Note the time of your practice in the accompanying booklet and answer the questions asked. Leave a break of around 30 seconds between each odorant.
- Practice this every day and have your ENT doctor evaluate your progress every month. After the first month of
 practice, if necessary (and in consultation with your ENT) you can continue with four new odorants.

For each three-month cycle, you can read the name of each odorant during the first month of practice. For the next two months, complete the exercise blind by randomly picking an odorant with the labels obscured. The association between exposure and descriptor can make it easier to recall the memory of the relevant smell. In addition, to boost your attention, you can focus on memories linked to this smell before your sense of smell was lost or reduced.

As a precaution, keep your odorants away from light and heat to increase their shelf life.

Step 1 - Before you start, answer the following questions based on the descriptor associated with each odorant in the *kit*:

In your mind,

✓ The smell associated with odorant 1 is: □ unpleasant, □ fairly unpleasant, □ neutral, □ fairly pleasant, □ pleasant

✓ The smell associated with odorant 2 is: □ unpleasant, □ fairly unpleasant, □ neutral, □ fairly pleasant, □ pleasant

✓ The smell associated with odorant 3 is: □ unpleasant, □ fairly unpleasant, □ neutral, □ fairly pleasant, □ pleasant

✓ The smell associated with odorant 4 is: □ unpleasant, □ fairly unpleasant, □ neutral, □ fairly pleasant, □ pleasant



Step 2 - Table for tracking the 'repeated exposure to odorants' exercise (copy the table as many times as you need)

Date	Time	Odorant	Can you detect a smell? (1 - no, 2 - maybe, 3 - yes, weakly, 4 - yes,	How did you find the smell? 1 - unpleasant, 2 - fairly unpleasant, 3 - neutral, 4 - fairly	
			strongly)	pleasant, 5 - pleasant	
		#1			
		#2			
		#2			
		#3			
		#4			
		#4			
		#1			
		#2			
		#3			
		#4			
		#1			
		#1			
		#2			
		#3			
		#J			
		#4			



Please note:

- The ENT doctor monitoring your file can consult this accompanying booklet.
- The exercises and protocols set out in this booklet are based on scientific studies. They optimize potential recovery of olfactory acuity, but do not in any way guarantee a particular recovery time or success rate.

Bibliography:

- Altuntag et al. Modified olfactory training in patients with postinfectious olfactory loss. Laryngoscope, 2015, 125, 8, 1763-1766.
- Bensafi et al. Olfactomotor activity during imagery mimics that during perception. Nature neuroscience, 6, 11, 1142-1144.
- Mainland et Sobel. The sniff is part of the olfactory percept. Chemical Senses, 2006, 31, 181-196.
- Patel et al. Randomized controlled trial demonstrating cost-effective method of olfactory training in clinical practice: essential oils at uncontrolled concentration. Laryngoscope Investigative Otolaryngology, 2017, 2, 2, 53-56.
- Plailly et al. Experience induces functional reorganization in brain regions involved in odor imagery in perfumers. Hum. Brain Mapp. 2012, 98, 3254–3262.
- Radulesco et al. Covid-19 et rhinology : conseils de bonne pratique, de la consultation au bloc opératoire. Annales françaises d'oto-rhino-laryngologie et pathologie cervico-faciale, 2020, 137, 286-291.
- Tempere et al. Learning Odors: The Impact of Visual and Olfactory Mental Imagery Training on Odor Perception. Journal of Sensory Science, 2014, 29, 6, 435-449.

Useful links to associations offering support, testimonials, and additional recovery protocols:

- https://www.afaa-sos-anosmie.com
- https://www.anosmie.org