

Instructions for Use

Identification Test

16 (Blue Pen's Ends) Marking ●

Plus 16 (Purple Pen's Ends) Marking ▲

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Description Smell Test With Odour Pens „Sniffin` Sticks“

„Sniffin` Sticks“ are used to investigate human olfactory performance. They have been developed in close cooperation with the association „Olfaktologie und Gustologie“ of the German Society For Ear, Nose and Throat Medicine, Head And Neck Surgery (<http://www.hno.org/olfaktologie>). Links to additional support in application of the Sniffin` Sticks and dealing with smell and taste disorders in German can be found here as well.

Identification Test

Here the ability to indentify everyday smells by means of a card with 4 choices is determined. It is a multiple-choice procedure, **which means the patient has to pick one of the 4 terms**. Altogether, 16 odours are presented in the Identification Test. The „Identification Test Plus 16“ (purple) contains 16 additional smells. It serves as supplement to the Identification Test 16, blue, to avoid possible recognition of the pens.

Use either the Identification Test (blue pen's ends) or the Identification Test Plus 16 (purple pen's ends). Primarily, both tests are available to make repeated tests of patients in a short interval (hours to days, e.g. before and after an operation) possible, without the patient recalling the answers. If you want to use both tests together, use the average of both Identification Tests for evaluation.

Usage

The examiner should always wear odourless gloves (e.g. made from cotton) and change them for each patient. When testing, the cap of only one pen should be removed. The cap has to be put back on the odour pen right after presenting the odour. Afterwards, the odour pen should immediately be placed and turned into the holder, with the tip pointing downwards.

For testing, the opened odour pen is held 2 cm centred in front of both nostrils and the patient is asked to smell e.g. using the word „attention“. Each pen should not be presented for more than 3-4 seconds. The interval between the different presentations should be around 30 seconds.

The odour pen must not touch the patient's skin during the smell presentation. However, if it accidentally comes in contact, the pen has to be disposed of for hygenical reasons and has to be replaced by a new one.

If the test is to be carried out left or right sided, the opened pen is simply held in front of one nostril; the untested side is in this case closed by the patient himself by placing the pad of the right or left thumb on the nostril from below. The closure must not deform the nose.

To gain results as significant as possible the patients should not have anything but water for at least 15 minutes before the test. They should also refrain from consuming chewing gum, sweets or cigarettes. The actual testing should take place in a quit and well ventilated room. It is worthwhile to assess a short anamnesis (see attached protocol sheet), which includes questioning the patient for his medical history, taking of drugs, occupation and smoke habits. In this sheet you also register the patients name, sex and age, as well as the information whether the test was made bilateral (L+R), left sided (L) or right sided (R). The patients should not receive any hint of how correct their answers are during the test. Furthermore, the examiner should avoid giving the patient unintentional hints concerning the correctness of his decisions.

16 pens are presented to the patient one after another at an interval of approximately 30 seconds. In order to be able to name the odorants, the patient gets a card with four terms each (multiple-choice card). It is the patient's task to pick the term which describes the presented odorant best. **The patient always has to make a choice, even if he is not sure.** The term given by the patient is marked in the enclosed protocol sheet.

If the test is to be carried out left or right sided, mind that in this case the order of the presented pens should be altered to reduce the predictability of the answer. It is e.g. possible to start with pen no. 1 at the left nostril and with pen no. 8 at the right nostril. Another option is the alternating application, i.e. once left is tested and the next pen at the right side and so on, until all 16 smells have been presented on each side. It is advisable to stay with the initially selected procedure and to note it down on the enclosed protocol sheet. Please also pay attention to the order of the numbered cards. Card 1 belongs to pen no. 1; card 2 belongs to pen no. 2 and so on.

Mind to use the multiple-choice cards and the protocol sheet marked "blue ●" for the Identification Test (blue pen's ends) and the ones marked "purple ▲" for the Identification Test Plus 16 (purple pen's ends).

Shelf Life:

The sticks are labelled with a best before date.

Storage:

Dry, at room temperature, avoid direct sunlight, don't store in the refrigerator.

Evaluation of the Results

Since the Identification Test alone is not intended for a detailed assessment, the only possible statement that can be made is based on the norm values on the evaluation sheet. If the result is within the range of the norm values, there is no hint to a smell disorder of the patient.

The result of the Identification Test is usually evaluated within the scope of the Extended Test together with the Threshold and the Discrimination Test.

Attached is an evaluation sheet (folded) as master copy. You may download the evaluation sheets on the internet as well: www.burghart-mt.de/eval.

Patient's Information for the Smell Test

The patient shall be informed about the test in the following way:

Your sense of smell is to be tested. This will be done by means of odour pens "Sniffin' Sticks". You will smell, sometimes with open eyes, sometimes blindfolded, pens containing different odorants. All substances contained in the test are non-toxic and not harmful in the used concentrations. If you should not be able to smell and thus cannot decide on an answer, please just guess. During the evaluation of the test it will be taken into account that you have been asked to come to a decision in any case.

• Identification Test:

Question: How well can you identify smells? 16 smells known from everyday life will be presented to you. You have to assign each smell to one of four terms on a card that describes the smell best.

Information for the Examiner:

Patients often do not understand why they have to decide for a particular smell on the answer card, even though they did probably not smell anything. The patient may be given the additional explanation that this is a basic principle of modern test procedures and that accidentally correct answers are taken into account during evaluation of the test. Under no circumstances does the patient take any legal risk in case of an expert opinion. During the evaluation it will be taken into account that he usually reaches a score greater than zero, even though he did not actually smell anything, but just hit the correct answer by chance. Thus, reaching this score indicates that the patient cannot smell or cannot properly smell.

The patient is often more motivated if you let him know that an evaluation of the test is not possible with missing data. That is why he has to give an answer for each smell; otherwise the test is not evaluable.

Literature:

Hummel, T.; Kobal, G.; Gudziol, H.; Mackay-Sim, Alan (2007)

Normative data for the "Sniffin' Sticks" including tests of odor identification, odor discrimination, and olfactory thresholds: an upgrade based on a group of more than 3,000 subjects
European Archives of Oto-Rhino-Laryngology, Vol. 264(3), pp. 237-243

Date, time _____, _____

Age _____

Name _____

Sex

m	f
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Occupation _____

Smoking

Yes	No
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Diagnosis, History

Drugs

The patient judges his own olfactory sensitivity as

normal

<input type="checkbox"/>

decreased

<input type="checkbox"/>

increased

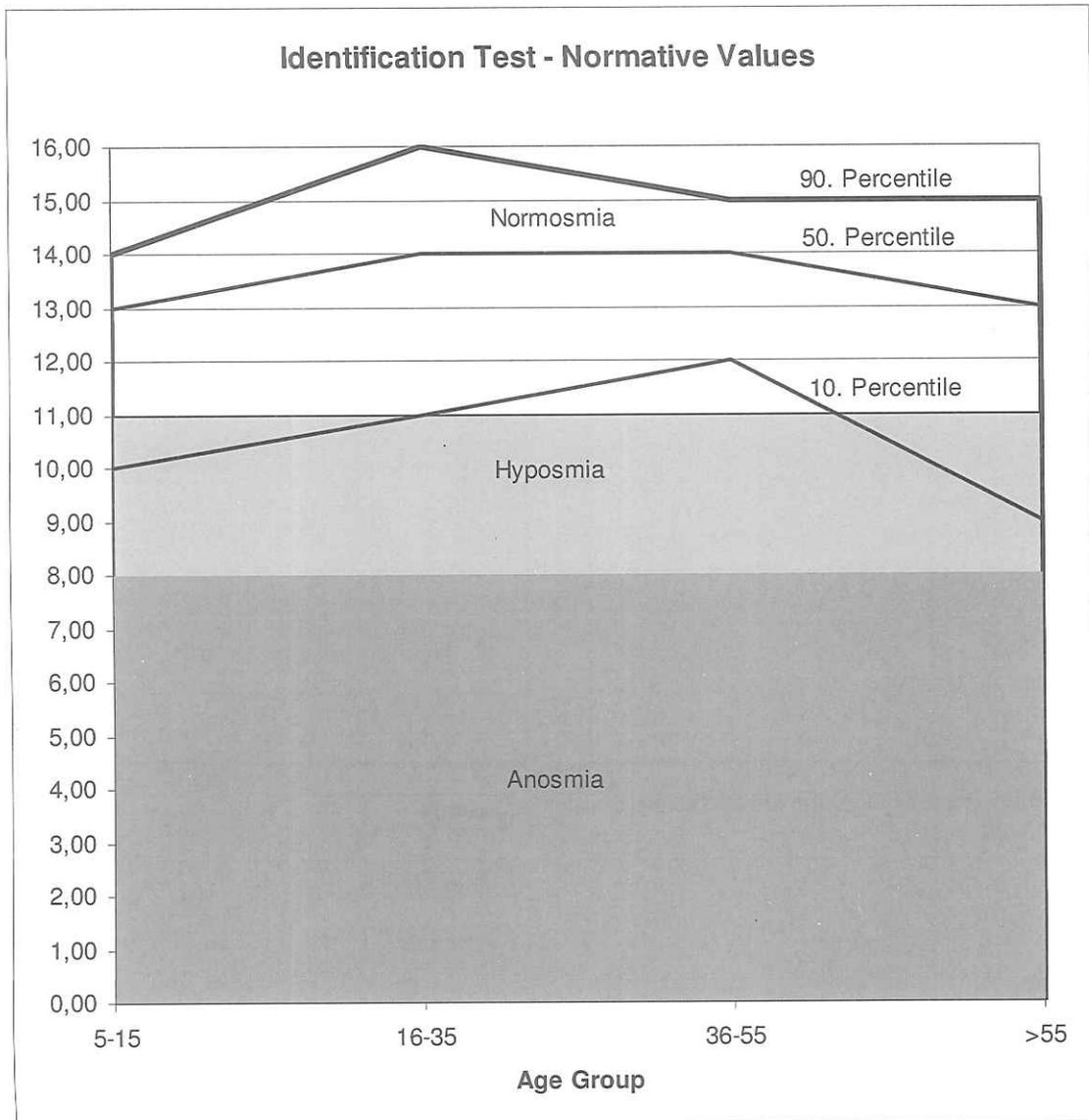
<input type="checkbox"/>

Results – Identification Test 16, blue ●

Identification

<input type="checkbox"/>	left
<input type="checkbox"/>	right
<input type="checkbox"/>	bilateral

The graph shows age-related normative values (90. percentile) for the Identification Test. The threshold for anosmia was defined by the score which has a random probability of <1%.



Date, time _____, _____

Age _____

Name _____

Sex m f

Identification Test 16, blue ●

left-sided testing

1	Orange	Blackberry	Strawberry	Pineapple
2	Smoke	Glue	Leather	Grass
3	Honey	Vanilla	Chocolate	Cinnamon
4	Chive	Peppermint	Fir	Onion
5	Coconut	Banana	Walnut	Cherry
6	Peach	Apple	Lemon	Grapefruit
7	Liquorice	Cherry	Spearmint	Cookies
8	Mustard	Rubber	Menthol	Turpentine

9	Onion	Sauerkraut	Garlic	Carrot
10	Cigarette	Coffee	Wine	Smoke
11	Melon	Peach	Orange	Apple
12	Clove	Pepper	Cinnamon	Mustard
13	Pear	Plum	Peach	Pineapple
14	Camomile	Raspberry	Rose	Cherry
15	Anise	Rum	Honey	Fir
16	Bread	Fish	Cheese	Ham

right-sided testing

1	Orange	Blackberry	Strawberry	Pineapple
2	Smoke	Glue	Leather	Grass
3	Honey	Vanilla	Chocolate	Cinnamon
4	Chive	Peppermint	Fir	Onion
5	Coconut	Banana	Walnut	Cherry
6	Peach	Apple	Lemon	Grapefruit
7	Liquorice	Cherry	Spearmint	Cookies
8	Mustard	Rubber	Menthol	Turpentine

9	Onion	Sauerkraut	Garlic	Carrot
10	Cigarette	Coffee	Wine	Smoke
11	Melon	Peach	Orange	Apple
12	Clove	Pepper	Cinnamon	Mustard
13	Pear	Plum	Peach	Pineapple
14	Camomile	Raspberry	Rose	Cherry
15	Anise	Rum	Honey	Fir
16	Bread	Fish	Cheese	Ham

Results (Sum of correct identifications) left _____ right _____

bilateral testing

1	Orange	Blackberry	Strawberry	Pineapple
2	Smoke	Glue	Leather	Grass
3	Honey	Vanilla	Chocolate	Cinnamon
4	Chive	Peppermint	Fir	Onion
5	Coconut	Banana	Walnut	Cherry
6	Peach	Apple	Lemon	Grapefruit
7	Liquorice	Cherry	Spearmint	Cookies
8	Mustard	Rubber	Menthol	Turpentine

9	Onion	Sauerkraut	Garlic	Carrot
10	Cigarette	Coffee	Wine	Smoke
11	Melon	Peach	Orange	Apple
12	Clove	Pepper	Cinnamon	Mustard
13	Pear	Plum	Peach	Pineapple
14	Camomile	Raspberry	Rose	Cherry
15	Anise	Rum	Honey	Fir
16	Bread	Fish	Cheese	Ham

Result (Sum of correct identifications) bilateral _____

Protocol/procedure:	

✂-----

Identification Test 16, blue ●

1	Orange	Blackberry	Strawberry	Pineapple
2	Smoke	Glue	Leather	Grass
3	Honey	Vanilla	Chocolate	Cinnamon
4	Chive	Peppermint	Fir	Onion
5	Coconut	Banana	Walnut	Cherry
6	Peach	Apple	Lemon	Grapefruit
7	Liquorice	Cherry	Spearmint	Cookies
8	Mustard	Rubber	Menthol	Turpentine

9	Onion	Sauerkraut	Garlic	Carrot
10	Cigarettes	Coffee	Wine	Smoke
11	Melon	Peach	Orange	Apple
12	Clove	Pepper	Cinnamon	Mustard
13	Pear	Plum	Peach	Pineapple
14	Camomile	Raspberry	Rose	Cherry
15	Anise	Rum	Honey	Fir
16	Bread	Fish	Cheese	Ham

The light fields are actually contained odours.

✂-----

- ORANGE
- STRAWBERRY
- BLACKBERRY
- PINEAPPLE



- SMOKE
- LEATHER
- GLUE
- GRASS



- HONEY
- CHOCOLATE
- VANILLA
- CINNAMON



- CHIVE
- FIR
- PEPPERMINT
- ONION

- COCONUT
- BANANA
- WALNUT
- CHERRY



- PEACH
- APPLE
- LEMON
- GRAPEFRUIT



- LIQUORICE
- CHERRY
- SPEARMINT
- COOKIES



- MUSTARD
- RUBBER
- MENTHOL
- TURPENTINE

- ONION
- SAUERKRAUT
- GARLIC
- CARROT



- CIGARETTE
- COFFEE
- WINE
- SMOKE



- MELON
- PEACH
- ORANGE
- APPLE



- CLOVE
- PEPPER
- CINNAMON
- MUSTARD

● PEAR

● PEACH

● PLUM

● PINEAPPLE



● CAMOMILE

● ROSE

● RASPBERRY

● CHERRY



● ANIS

● HONEY

● RUM

● FIR



● BREAD

● CHEESE

● FISH

● HAM