

OLFACTION : LITTLE-KNOWN PROPERTIES

THE HUMAN OLFACTORY SYSTEM

1000
Billion
different smells
can be distinguished

5
Million
olfactory cells

400
different
olfactory
receptors

2cm²
surface of the human
olfactory mucosa
Vs
100 cm²
surface of the olfactory
mucosa in cows!



SMELL & TASTE ARE THEY LINKED ?

1

ORTHONASAL
PATHWAY : ODOUR

**2 mechanisms involved in
odour perception**

THERE ARE TWO WAYS TO SMELL

The **retronasal pathway** is often
confused with taste perception! But
it is really about smell..

2

RETRONASAL
PATHWAY : AROMA

Aromas are complex! In wine,
for example, we can find 600
to 800 aromatic compounds!

“Without the participation of the sense of smell there
is no complete tasting... one (the taste) serves for the
tasting of tactile bodies, and the other (the sense of
smell) for the tasting of gases

*Anthelme
Brillat-Savarin*

80%
of taste
perception
is actually
smell



TASTE

5 TASTES

sweet, salty, sour,
acid and umami



SMELL

Flavours
millions of
possibilities!



+ TRIGÉMINAL

Fizzing, pungent, burning,
astringent, irritating, freshness,
but also the temperature of the
food.



= FLAVOUR

All the olfactory, gustatory
and tactile sensations
experienced during the
tasting.

THE IMPACT OF AROMATIC MOLECULES ON THE BRAIN

The **sense of smell** is the only sense directly linked to the **brain**.
Aromatic molecules are identified by **olfactory receptors** which transmit a
nervous message to the areas of the brain involved in :

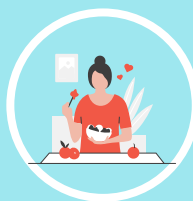
Management
of emotions



Management
of stress



The pleasure
of eating



The stimulation
of our memories



Phode olfactory solutions use the benefits
of aromatic molecules for Better-Being