The Neurology of Taste & Smell

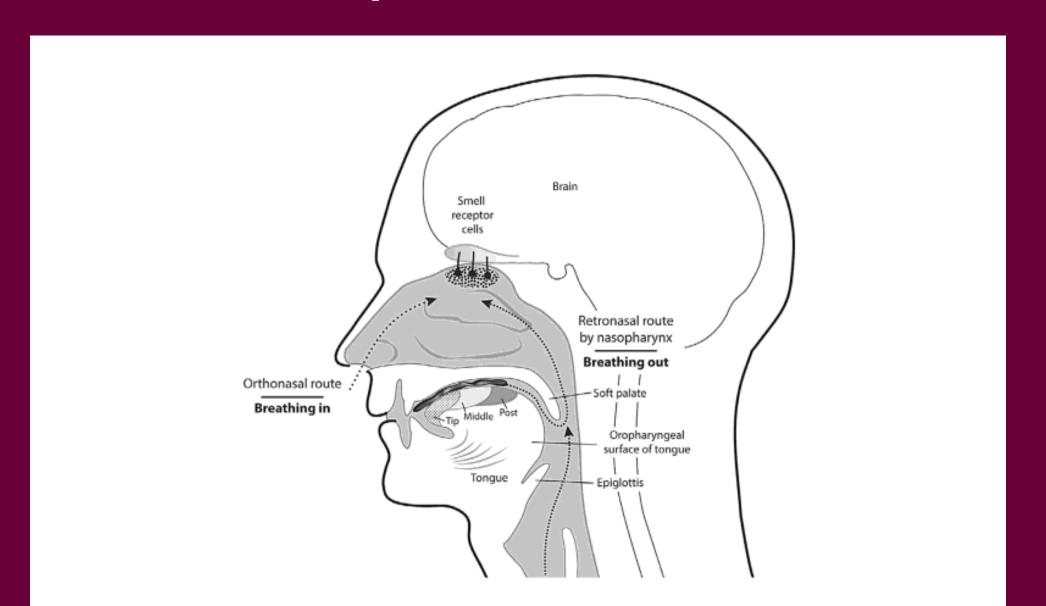
For Food & Wine Pairing



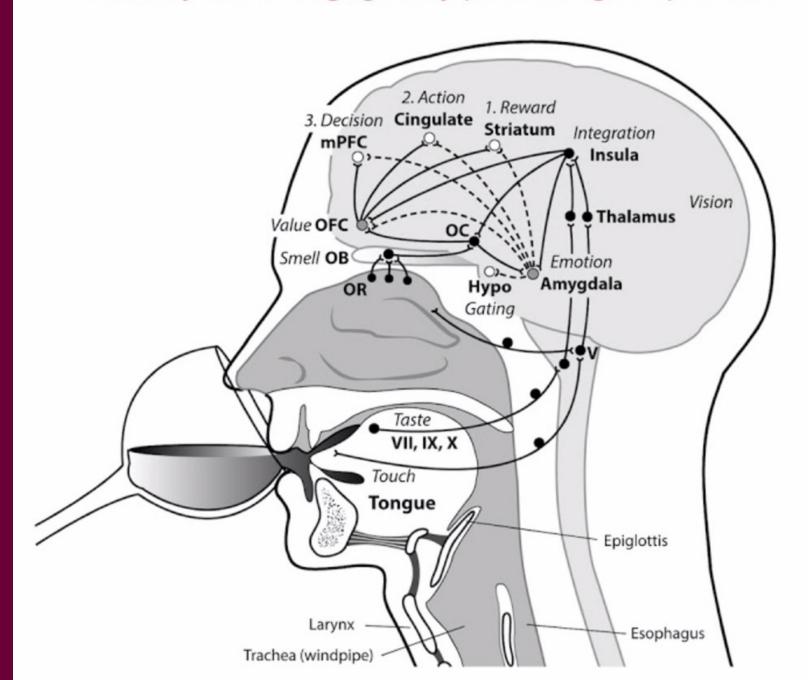




The Dynamics of Smell



Brain systems engaged by perceiving a sip of wine



Taste

- Taste is related to smell in how we perceive the flavors of food.
- The flavors of the food comes from the sense of smell.
- Taste sensors (taste buds) are not the aromas of the food but are detecting sensations.
- 5 tastes of: sweet, salty, sour, bitter, and umami
- The relationship between the taste sensors and aromas detected by our <u>olfactory bulb</u> determine the perceptions of the foods we eat.

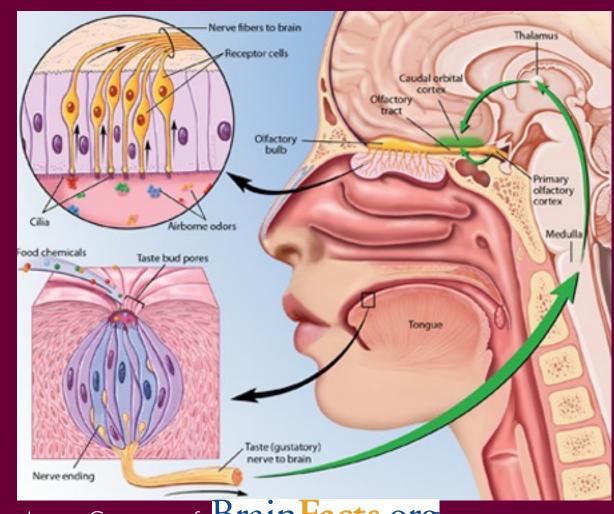


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Fundamentals Food & Wine Pairing

TASTE is an important sense that we use to effectively evaluate food and wine.

In terms of pairing food and wine, it is the most basic element.

YOUR SENSE OF SMELL is most important in determining and detecting aromas that work together.

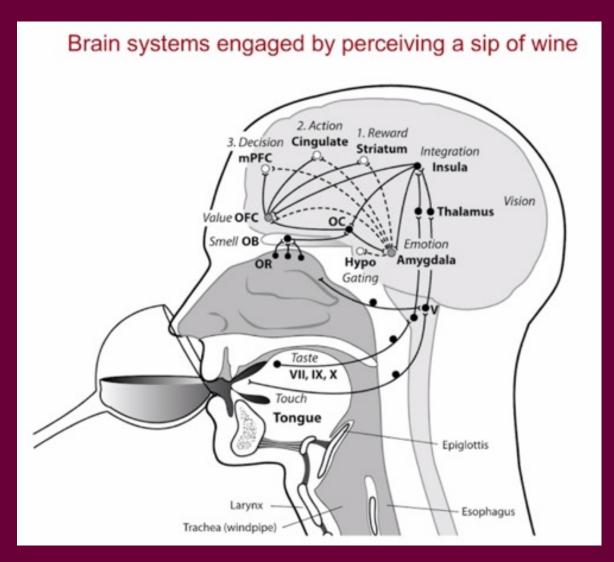
You can't "taste" flavors without your sense of smell.

TASTES VARY BASED ON:

CULTURE

BIOLOGY

EXPERIENCES



Consider these elements too...

- Weight
- Intensity of Flavor
- Cooking method
- Cut of protein

Not actual tastes themselves, they are evaluated on the palate and experienced on the tongue, teeth and cheeks

These are **sensations** and **textures** that you FEEL.







- Salt is important to enhance flavors in food but can be damaging to the palate
- High salt levels can sting and take over sensations on the palate
- Saltiness in wine occurs in wines that are also generally high in acidity.

SALT WILL BRING OUT THE FRUITINESS IN WINE

Salty foods need acidity and fruitiness in wine - SUCH AS BUBBLES!

- Foods High in Salt
 - Shellfish, Finfish, Soy Sauce, etc.

FOODS:

Trout Dip Crab Cakes Caprese Skewers

WINES:

Cava (Sparkling Wine) Albariño

Sour (Acidity)



FOODS:

Crab Cakes with lime sauce Caprese Skewers with balsamic

WINES:

Cava (Sparkling Wine) Albariño

- Creates SALIVATION on your palate
- Individually different levels of salivation depending on the level of acidity AND your perception!
- Generally, we detect acidity after sweetness
 - The sensation of acidity can linger throughout the finish of the wine or food and leave your palate feeling refreshed.
- Acidity can be felt on the teeth at high levels
- ACIDITY in wine needs to meet or exceed the acid in the food!
- Common foods higher in acid
 - Goat Cheese, Lemons, Limes, Tomatoes, Coffee, Tea
 - Cevichè, Vinaigrettes, Migonnettes,

Bitterness & Tannin



- High tannin in wines can taste bitter and feel astringent (mouth-drying)
- The effect of tannin is most noticeable on the gums, cheeks and tongue
- Astringency needs FAT!
- Bitterness needs sweetness/fruitiness to offset SALT can help!
- Common foods with tannin:
 - Walnuts, Black Tea, Berries, Skins of most Tree Fruits, Pomegranate, Olives

Wines with Tannins:

PINOT NOIR - soft tannins

TEMPRANILLO - medium tannins

CABERNET SAUVIGNON - firm/high tannins

FOODS:

Stuffed Mushrooms

Beef Tenderloin

2 sauces:

slaw

peppercorn-cream sauce

WINES:

Pinot Noir

Tempranillo

Cabernet Sauvignon

Savory (Umami)

Umami From Plants

- Considered the "Fifth Taste"
- From the Japanese *umai* (delicious) and *mi* (essence)
- Umami is a savory sensation and flavors that can be tangy, silky, salty and fermented
- Common in ASIAN cuisines
- Common Foods with Umami
 - Soy, Miso, Fermented foods, Tomato, Mushrooms, MSG
 - Most red wines are Umami especially as they age

UMAMI FOODS can make wines taste acidic and bitter

Sweet



FOODS:
Blue Cheese
Chocolate

WINES:

Port styled wine

- For most of us, this is the first element that most will taste and recognize.
- When you taste wine...
 - Ask yourself: Is this wine Sweet or Dry?
- A result of the **presence** or **absence** of residual sugar
 - Residual Sugar (RS) is the sugar that remains in wine after fermentation
 - Some winemakers ferment ALL of the sugar into ALCOHOL others leave some behind to balance the acidity in wine.
 - Sweetness in wine needs to meet or exceed the sweetness in the food!
- Common foods high in sugar
 - Apples, Mangos, Grapes, Tomatoes, Carrots, Beets
 - Desserts, Teriyaki sauces, BBQ sauces, Commercial bottled dressings

Taste the Wine First!

- SINCE YOU CANNOT CHANGE THE WINE...
 - Important to choose the wine first, then prepare the food based on the wine you want to drink!
- REMEMBER: "What grows together goes together"

Vistage Group,

Thank you for your interest in learning!

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