



# *Palate Calibration*

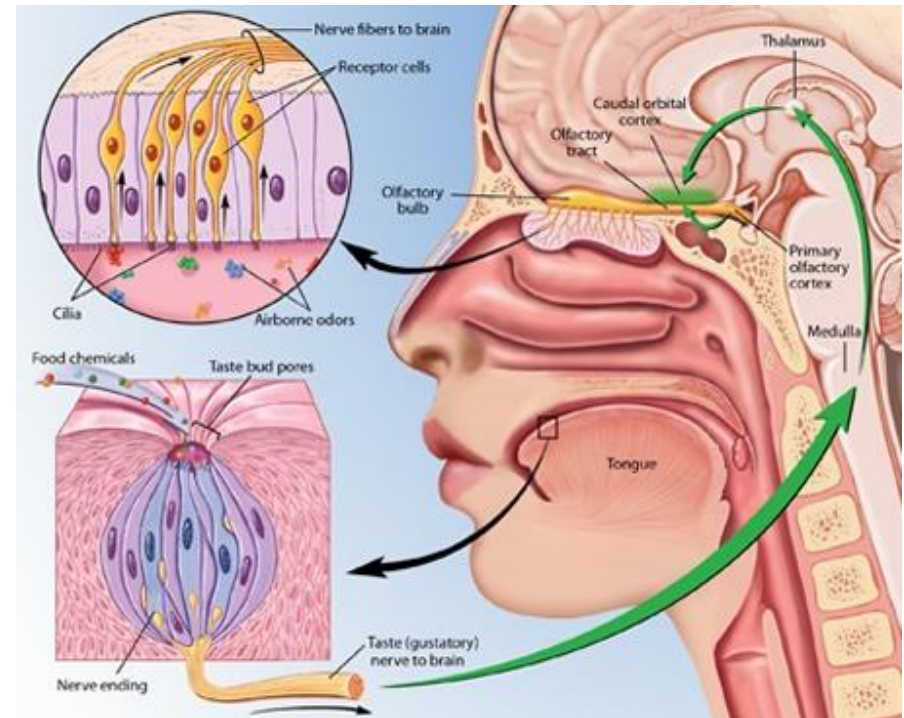
Understanding Components and Aromas

# *Your nose and palate*

What makes up your abilities?

Biology:

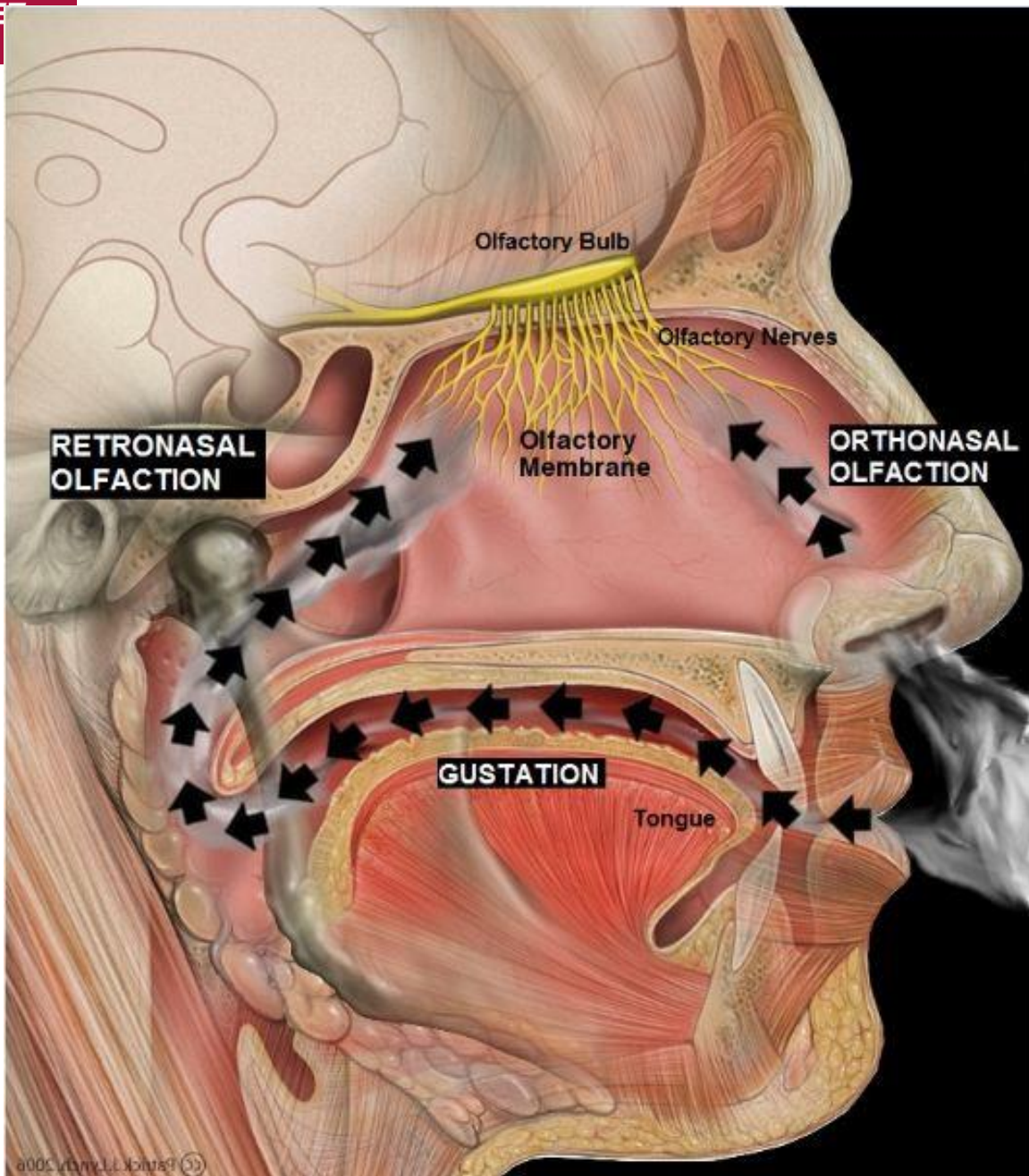
1. Age
2. Experiences in life
3. Culture
4. Gut bacteria
5. Hunger
6. Neurology of taste and smell
  1. Taste buds
  2. Palate sensitivity
  3. Saliva



# *How we smell aromas*

- Most odors are **not** defined in our brain
  - Odor patterns are matched to **memory** patterns
  - Odor memories are created in the brain (aroma library)
  - Blending of aromas will confuse what we are smelling
    - individual identification is important
  - Increase memory of aromas BY SMELLING EVERYTHING!





# *Components in Wine*

- Water: 80 to 95%
- Alcohol
- Acids
- Polyphenols
- Sugars
- Carbon Dioxide/CO<sub>2</sub>



# ACIDS

Organic acids in grapes and wine include tartaric, malic, acetic, succinic and lactic acids.

~ Maintaining balanced acid in grapes and wine will aid in anti-microbial stability

## **Tartaric Acid:**

- The strongest acid
- Specific to grapes, rarely found in nature

## **Malic Acid:**

- Most prevalent in unripe grapes
- Degrades as the grape ripens but remains at high levels in certain varieties and climates/soils
- Can be degraded by lactic acid bacteria and turned to lactic acid through malo-lactic fermentation

Together account for 90% of grapes acidity

# *Acids -Expressed on the palate*

## **Visual:**

Gives brilliance, reflective quality, **maybe your eyes water or twitch**

## **Olfactif:**

Usually not perceivable but malic acid reminiscent of green apples or baby aspirin, sometimes a citrus note is detected

## **Taste:**

Has an acidic flavor, tart and mouth drying leading to salivation

## **Tactile sensation:**

Felt on side of the tongue or on the inside cheeks, salivation, mouth watering sensation

**Your teeth may feel squeaky**

## **Malolactic fermentation:**

Adds creamy texture, buttery aromas, added body

## Benefits

- Balances high acid in wine
- Adds viscosity and body
- Sweetens and enhances fruit aromas
- Adds age-ability along with acid
- Tastes sweet and/or fruity
  - Sauvignon Blanc (citrus)

## Sensory

- Tears/legs appear – slow moving dependent on the amount of residual sugar present.
- Aromas appear fruity and enhance aromatics
- Flavors balance acid
- Enhance viscosity and body
- Most palates recognize at differing thresholds

# *sugar*

Mostly glucose and fructose

Glucose ferments faster than fructose

Fructose is almost twice as sweet as glucose

The sugar content of the juice of ripe grapes can vary greatly - 150 to 250 g/L

- In unripe berries, glucose is the predominant sugar.
- At the ripening stage, glucose and fructose are generally present in equal amounts. (1:1 ratio)
- In overripe grapes, the concentration of fructose exceeds that of glucose.
- In ripe grape varieties, there are variations in the glucose to fructose ratio

## EXAMPLES:

- Chardonnay is classified as high fructose variety
- Chenin blanc is a high glucose variety

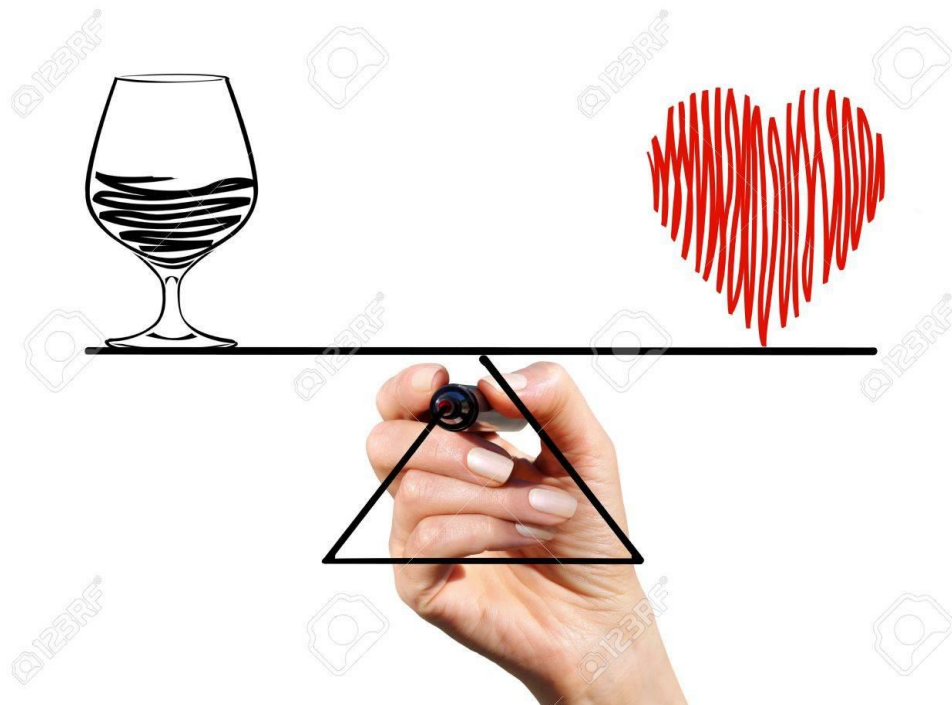
# Assessing residual sugar

*What are the key characteristics to consider for balance?*

- Integration of alcohol
- Where applicable, the balance of acid/residual sugar

*What are the expected identifiable characteristics in the wines with RS?*

- Primary fruit characteristics
- Secondary characteristics
- Tertiary characteristics
- Density and viscosity



# *Alcohol - Expressed on the palate*

## Benefits

Adds sweetness

Adds weight and glycerol

Adds legs/tears

- Thin, quickly moving legs will indicate a wine light-to-medium in body with relatively low alcohol or without residual sugar.
- Thick, stained in color and slow to move, indicates a full-bodied wine with considerable concentration and relatively high alcohol content or residual sugar or both.

## Sensations

Tears/legs appear visually

Stinging on the nose

Upon swirling alcohol gets pushed out

Heat on the palate/throat

- Warm temperatures of the wine exacerbate the heat on the nose and palate

Sweetness

Bitterness

Viscosity and weight

Associated with body

# *SAT alcohol scale*

Low = 5 - 11% abv

- Asti and Moscato d'Asti
- some youthful styles

Medium = 11.1 - 13.9 % abv

- Many youthful whites (low end)
- Oaked whites
- Light bodied/high acid reds
- Moderate climate reds and whites
- Sweet wines

High = 14% abv and above

- Full bodied and warm climate whites and reds
- Sweet wines (Sauternes)

# *Tannins - Expressed on the palate*

## Benefits

### Polyphenols

- Enhance age ability
  - Add anti-oxidative elements
  - Adds color
  - Adds texture
  - Adds flavor – aromas are contained beneath the skins
  - Can add bitterness
  - Adds tannins - astringency

## Sensations

- Deepens color dependent on skin contact, temperature of fermentation and variety
- Adds aromas dependent on variety, provenance, winemaking, etc.
- Adds flavors of bitterness
- Adds astringency and texture
- **Oak tannins vs. Grape tannins**

# Assessing the finish

## *What are the key characteristics in the structure?*

- Does the wine have structural length?
- Does the wine have aromas that fill the structure?
- Do the aromas go as long as the structure?

## *What is the duration (length) and nature of the finish?*

- Is there only one component noticeable on the finish?
- Do the flavors linger beyond the structural components?
- Do the flavors develop further on the finish?





## APPEARANCE

**Clarity/Brightness** clear - hazy - bright - dull - faulty

**Intensity** pale – medium – deep

**Colour**

|       |                                            |
|-------|--------------------------------------------|
| white | lemon-green - lemon – gold – amber – brown |
| rosé  | pink – salmon – orange - onion skin        |
| red   | purple – ruby – garnet – tawny             |

**Other Observations** e.g. legs, deposit, petillance, bubbles

## NOSE

**Condition** clean - unclean - faulty?

**Intensity** light – medium(-) – medium – medium(+) – pronounced

**Aroma characteristics** e.g. primary, secondary, tertiary

**Development** youthful - developing - fully developed - tired/past it's best

## PALATE

|                                |        |                                                                                                                                 |
|--------------------------------|--------|---------------------------------------------------------------------------------------------------------------------------------|
| <b>Sweetness</b>               |        | dry – off-dry – medium-dry – medium-sweet – sweet                                                                               |
| <b>Acidity</b>                 |        | low – medium(-) – medium – medium(+) – high                                                                                     |
| <b>Tannin</b>                  | level  | low – medium(-) – medium – medium(+) – high                                                                                     |
|                                | nature | e.g. ripe, soft, smooth, unripe, green, coarse, stalky, chalky, fine-grained                                                    |
| <b>Alcohol</b>                 |        | low – medium – high                                                                                                             |
| <b>Body</b>                    |        | light – medium(-) – medium – medium(+) – full                                                                                   |
| <b>Flavour intensity</b>       |        | light – medium(-) – medium – medium(+) – pronounced                                                                             |
| <b>Flavour characteristics</b> |        | e.g. primary, secondary, tertiary (fruits, flowers, spices, oak, other                                                          |
| <b>Other observations</b>      |        | e.g. texture (oily, creamy, austere, luscious), balance, other<br><b>Sparkling wines (mousse): delicate, creamy, aggressive</b> |
| <b>Finish</b>                  |        | short – medium(-) – medium – medium(+) – long                                                                                   |

## CONCLUSIONS

### Quality assessment

poor – acceptable – good – very good – outstanding

*(an explanation supporting the assessment of a wine's quality will be required)*

### Bottle ageing

suitable for bottle ageing – not suitable for bottle ageing

*(an explanation supporting the assessment of a wine's suitability for bottle ageing will be required)*