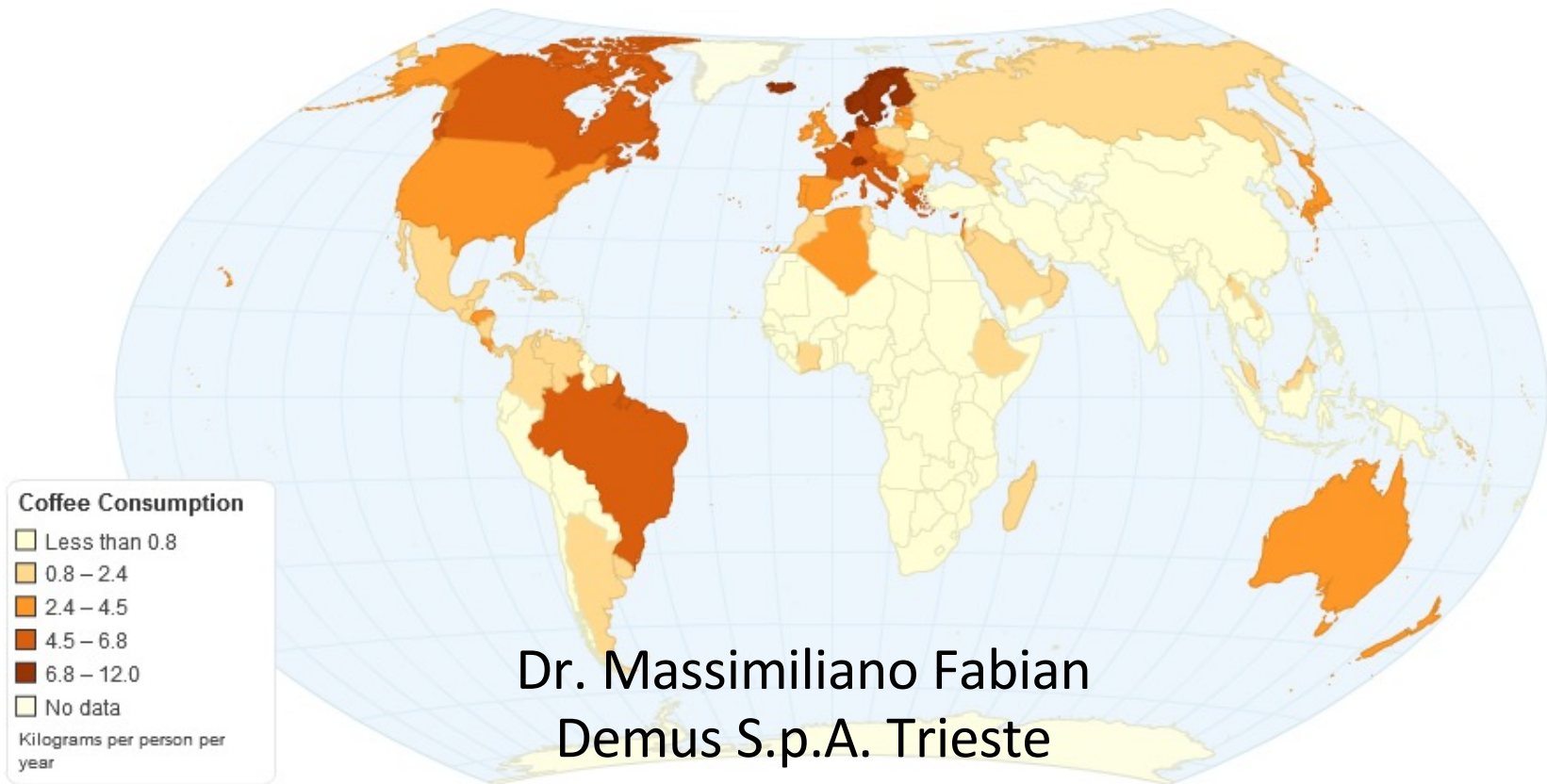


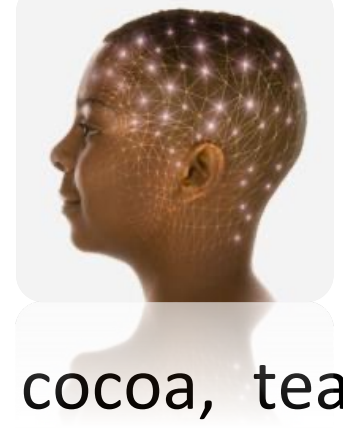
QUALITY OF DECAF ESPRESSO



COFFEE AND CAFFEINE

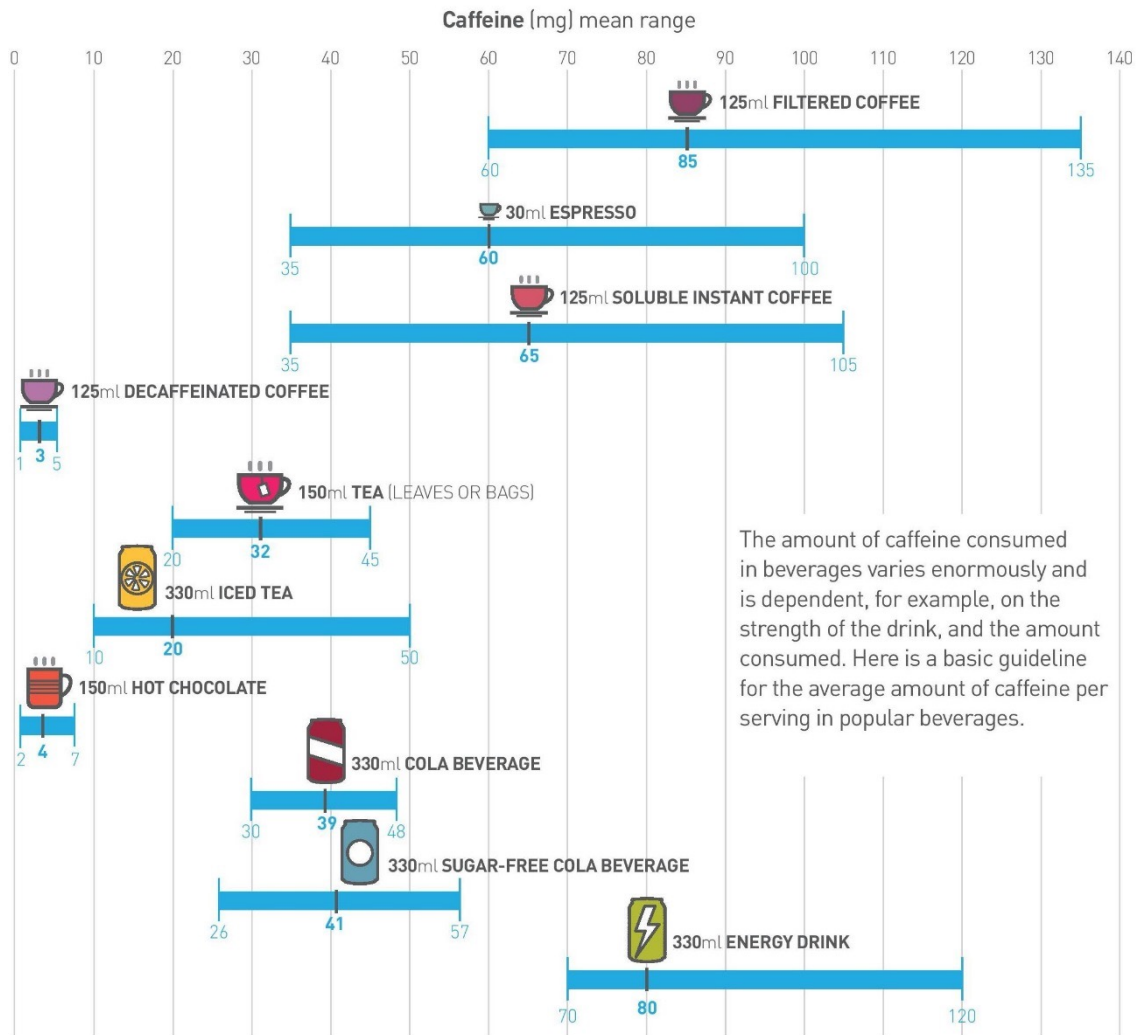


CAFFEINE



- Alkaloid that may be found in coffee, cocoa, tea, guaraná, etc...
- Mild stimulant of the nervous system (up to 400 mg/day – EFSA advice) \Rightarrow adenosine antagonist
- Excessive assumption can cause some serious side effects as over excitation and sleeping difficulty

SOURCES OF CAFFEINE



The amount of caffeine consumed in beverages varies enormously and is dependent, for example, on the strength of the drink, and the amount consumed. Here is a basic guideline for the average amount of caffeine per serving in popular beverages.

CAFFEINE

- Dose dependent action (consumption vs. body weight, different metabolisms)
- Consumption in soft drinks
- It does not create addiction (but habituation)



DRINKING DECAFFEINATED COFFEE

- A solution for people who like to drink coffee and avoid more caffeine than what they tolerate
- People with health problems have not to renounce to the pleasure of coffee taste (intolerance towards caffeine, heart disease, high blood pressure, etc..)
- Strong reduction in waxes content (5-CHT, “dewaxed coffee” means not more than 250 ppm of 5-CHT) with decaf coffee Demus DCM processed, therefore no irritation for the gastric mucosa

WHAT IS DECAFFEINATED COFFEE?

- A coffee where almost all the caffeine has been removed after an extraction process
- Residual caffeine content $\leq 0.1\%$ in Europe; 97% removal in USA
- No influence on human physiology



FOUR DIFFERENT METHODS

- Water
- Ethyl acetate
- Carbon Dioxide (supercritical or liquid)
- Dichloromethane (i.e. methylene chloride)

THE QUALITY OF DECAF ESPRESSO



CUP QUALITY

The result in a cup of a “regular” and decaffeinated coffee depends on numerous factors:

- Choice of high-quality raw material
- Roasting and grinding process
- Packaging and conservation
- Cup extraction
- Impact of the method of decaffeination

THE RESULT OF THE DECAF CUP

- Demus' goal is to obtain a decaffeinated coffee with its decaffeination process that maintains the initial quality of green coffee.
- The ultimate goal is that a good, correctly processed coffee has nothing to envy, from an organoleptic and aromatic point of view, if compared with a "regular" coffee, up to the point that it's very difficult to find appreciable differences in the drink between the two.



HOW TO GET THE BEST CUP OF DECAF COFFEE

1. Start with a good quality and selection of green coffees. Decaffeination can be carried out on grains of the same origin or starting from any type of blend.
2. Pay attention to the roasting indicators (temperature and time) because the risk is to obtain a dark brown on the outer layer of the bean and light on the inside (uncooked) and this might produce a rough and astringent taste.

HOW TO GET THE BEST CUP OF DECAF COFFEE

3. The grinding of decaf coffee is different from "regular" coffee. It's much more delicate because it tends to be more friable (brittle) and, as a consequence, non homogenous coffee powders can be produced. It is necessary to pay close attention to the regulation of the grinder and to the grinding stage in general. Gauss particles curve needs to be sharpened. The best result is to grind just before the preparation of the drink with the appropriate grinding point or the use of the single-dose system that avoids an approximate extraction and contains a properly grounded product.

HOW TO GET THE BEST CUP OF DECAF COFFEE

4. Conservation and packaging: roasted decaffeinated coffee has the same “conservation enemies” as “regular”: loss of aroma, humidity and oxidation (particularly rancidity). On decaffeinated coffee the degradation process and the loss of aromatic substances is slightly faster. The packaging is still a fundamental factor in terms of coffee quality.

HOW TO GET THE BEST CUP OF DECAF COFFEE

- Preparation of espresso: the same care needs to be adopted as for "regular" coffee preparation; a good espresso machine, a good preparation technique and correct grinding. We recommend using a specific grinder for decaf, in order to avoid contamination between coffees and guarantee the specific granulometry for a correct extraction.



DECAFFEINATED ESPRESSO CUP

- Slightly lighter crema, slightly more acid taste balance, slightly lower body. Difference that can be corrected with proper blend choice and roasting.
- The (negligible) body loss is likely due to wax removal and may be improved by roasting/blending.
- Removal of negative aromas: an improvement in the cup is obtained when coffees with defects (such as smell and taste of wood, earth, rio and mould) are processed with Demus system.

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