



**ISTITUTO
ALBERGHIERO
ASSISI**

**«Resources of the territory:
water as union between culture
and enogastronomy – the
employment of water in
enogastronomic preparations»**

Class 5 F Enogastronomy
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THE USE OF WATER IN ENOGRASTRONOMY

Still or sparkling, cold or room temperature, even among the cookers, giving and recognising water its right value is important for the full success of each recipe.

NATURAL WATER



Natural water is ideal for:

- preparation of hot and cold infusions;
- cooking foods which absorb it, such as pasta, pulses and cereals;
- preparing soups.

NATURAL WATER

Natural water is
ideal for kneading:

- bread, pizza, tats,
'torta al testo' (i.e. flatbread)
- dried pasta, such as spaghetti,
penne, zite, etc.
- fresh pasta, such as Umbricelli,
strangozzi, pici.



SPARKLING WATER



Sparkling water is ideal for:

- blanching vegetables;
- iced, to prepare batter (for fried food and a crunchy tempura);
- iced, to cool down vegetables and preserving in them a much vivid colour too.

WATER COOKING METHODS



In cooking, we consider as "soft" cooking methods all those techniques that do not exceed a temperature of 100°C .

- boiling and steaming ($90/100^{\circ}\text{C}$);
- poaching, bain-marie cooking ($70-85^{\circ}\text{C}$)

WATER COOKING METHODS

- **Cereals, potatoes and pulses** are rich in starch, which, during boiling, tends to swell;
- **in vegetable foods** water makes the cellulose 'tender'.



STEAMING

- This cooking method grants the preservation of colour, aroma and nutritional principles of the product.
- It can be adopted for the cooking of **vegetables, cereals, meat and fish.**



STEAMING

- It is a cooking method without **fats**, very interesting from a dietetic-nutritional point of view.



BOILING



Food boiling can be done in two different ways:
by immersion of the products in a cold liquid or in an already boiling liquid.

BOILING



- The first cooking method is used for the preparation of broths, gravies and dried pulses;
- The second method is used to cook meat, fish, vegetables, eggs, pasta, rice.

POACHING



Ideal for white meat, fish, eggs.
The food is immersed in a little quantity of aromatised liquid, keeping the temperature constant between 70-85°C until cooking is completed.

BAIN-MARIE COOKING



Bain-marie cooking is made at temperatures inferior to 100°C , ideal to make meringue, sauces and creams, such as bernaise sauce, hollandaise sauce, custard cream, zabaglione.

BAIN-MARIE COOKING



For the preparation of flans and pudding, bain-marie cooking is instead generally done in the oven, at a 150-160 °C temperature.

MINERAL WATERS



"Natural mineral waters are considered those waters that, originating from a ground water or an underground deposit, come from one or more natural or perforated springs, having particular hygienic characteristics and properties favourable to health."

MINERAL WATERS

Classificazione delle acque in base al **residuo fisso**:



Acque minimamente mineralizzate.

Residuo fisso:
minore a
50mg/l



Acque oligominerali.

Residuo fisso:
compreso tra 50 e
500 mg/l



Acque medio minerali.

Residuo fisso:
tra 501 e 1500 mg/l



Acque ricche di minerali (calcio, sodio, ferro, fluoro)

Residuo fisso:
oltre i 1500 mg/l

The main classification of mineral waters is based on the **fixed residue**, that is the total content of **Mineral Salts** dissolved in 1 litre of water after its evaporation at 100°.

WATER SOURCE OF LIFE



Essential component for life and health, water presides over many fundamental functions of our organism:

- It regulates body temperature;
- It lubricates lungs, eyes, and skin tissues.

WATER SOURCE OF LIFE



- It facilitates the digestion process of motility and absorption of nutritional substances;
- It helps diuresis.

HIS/HER WATER



- **FOR THOSE WHO WANT TO LOSE WEIGHT:** oligomineral water, which helps eliminating body waste with urine. It is advisable to drink at least 1.5 litre of water during the day.
- **FOR THOSE WHO SUFFER FROM KIDNEY STONES:** drink oligomineral water, that is poor in minaral Salts.
- **FOR THOSE WHO PRACTICE SPORT:** water rich in calcium, iron, magnesium, potassium, sodium and cloroide.



TO EACH HIS/HER WATER

- FOR THOSE WHO HAVE HIGH BLOOD PRESSURE: oligomineral water, it helps diuresis
- FOR THOSE WHO HAVE DIFFICULTY OF DIGESTION: mineral water of the kind bicarbonate-sulphate
- FOR THOSE WHO ARE AT RISK OF OSTEOPOROSIS: mineralised water rich in calcium. It is important that the calcium contained in water is not eliminated but absorbed by the organism

HOW TO REDUCE WATER WASTE

A hand is shown at the top, holding the handle of a silver metal bucket. The bucket is inverted, and water is spraying out from its bottom in several streams. The background is a bright blue sky with scattered white clouds.

We are used to think that water is an infinite resource.

It is instead necessary to reflect for a while when we open the taps.

Even and especially in the kitchen!

THE VEGETABLES COOKING WATER



It can be simply used as a broth to cook pasta, risottos and soups, as a base for velouté soups and creams, or to prepare a light béchamel sauce.

THE VEGETABLES' WATER



The presence of mineral salts in the vegetables cooking water makes it a nutrient for plants; it can be used to water plants and flowers, it is important that the water has not been salted.

THE PULSES' WATER



The pulses' cooking water, chickpeas in particular, known as '*ACQUAFABA*', is nutritionally similar to egg white, because very rich in proteins.

THE PULSES' WATER



'ACQUAFABA', used very cold, can be whisked until stiff, exactly like albumen, to prepare meringue.



THE COOKING WATER OF RICE, PASTA AND POTATOES

The presence of starch in cooking water makes the liquid particularly interesting to prepare doughs for bread and pizza.

THE COOKING WATER OF RICE, PASTA AND POTATOES



Starch makes doughs sticky, it is a good binding and the compound will result malleable, soft and it will tend less to dry and crumble.

THE COOKING WATER OF RICE, PASTA AND POTATOES



The cooking water of pasta and rice is also an excellent degreaser, so, if we really want to throw it in the sink, we can use it to eliminate residues of fat in pots and pans.

THE COOKING WATER OF RICE, PASTA AND POTATOES



It is also ideal to soak napkins and towels with stubborn stains in the rice cooking water.

It can also be used to dilute a seasoning, such as for example pesto or 'cacio e pepe' (cheese and pepper)

REDUCING WATER CONSUMPTION



- If you steam-cook, you can reuse the remaining water to cook pasta
- Wash fruit and vegetables in a container and use running water only for rinsing

REDUCING WATER CONSUMPTION



- Check water taps and pipes to avoid leaks in the water installation
- Use high water efficiency tapware and apply a flow reducer to the taps
- Buy household appliances, such as dishwashers, with a high energy saving class

REDUCING WATER CONSUMPTION



- Potentiate the use of renewable energy, such as eolian and solar energy
- Reduce the use of water resources for the production of electric power