

Title.Pasta

Introduction:

The growing demand for new food like different cereals and cereal products offers a great opportunity for manufacturers in high-potential, urban areas to enhance their livelihoods through increased production to meet the market needs. With the change in lifestyle among the people around the world, the eating habits of people have also changed. Italian food is preferred by people of all ages. Pasta's available in different varieties like penne rigate, fussili, conchigli, spaghetti, coloured pasta etc. Pasta is a staple in the diet of people around the world. Pasta makes an ideal meal as a part of healthy diet as it is a rich food high in complex carbohydrates, vitamins, iron, and above all is low in calories.

This episode deals with different types of **pasta** special reference to history ,different types and shapes of pasta, manufacturing methods, world production ,ect. The following topics are highlighted,

- 1: History of Pasta
- 2: Different types of pasta
- 3: Manufacture
- 4: Preservation of pasta
- 5: Conclusion

1:History of Pasta

Pasta is a universally enjoyed food, and almost every country serves a type of noodle. Staple food item in America and Europe. The popularity of pasta can be attributed to several factors: it is easily manufactured The first industrial production of pasta occurred in Naples in the early 15th century.

- The modern word 'macaroni' derives from the Sicilian term for making dough forcefully. At that time, pasta dough was often kneaded with the feet for a significant amount of time.

Italian pasta enthusiasts organized a World Pasta Conference in 1995, they celebrate World Pasta Day every year in October, since 1998. There is also an Italian Pasta Association and a Pasta Museum in Rome. The first industrial pasta factory in the US was built in Brooklyn in 1848 by a Frenchman. Pasta is generally a simple dish, but comes in large varieties because it is a versatile food item

Lifestyle changes have been increasing rapidly since the introduction of media. Media - films, television shows, attractive glossy magazines, and the Internet are the main sources of lifestyle influence around the world. Lifestyle changes include how people eat, dress, communicate, etc. Trends have always been influenced by the rich and famous.

2: Different types of pasta

Types of pasta

- ✓ Dried
- ✓ Frozen
- ✓ Short
- ✓ Shaped
- ✓ Fresh
- ✓ Long
- ✓ Sheet

Pasta comes in different textures and shapes and so it needs to be cooked or boiled differently. Some like angel hair are very delicate and probably need only a few minutes to cook while shells might take a bit longer as well as that all kinds of pasta don't go with all kinds of sauces.

Pasta available in two forms,ie Fresh and dry forms.

1: **Fresh pasta** is best served with delicate sauces where the texture of the pasta can take front stage. Fettuccine Alfredo is a whole new experience with fresh pasta, no question!

2: **Dry pasta** is made from finely ground semolina flour and water (no egg, usually) that is mixed into a paste, pushed through molds, and cut into the multitude of pasta shapes.

Unlike fresh pasta, this pasta is dried at a low temperature for several days until all the moisture has evaporated, allowing it to be stored almost indefinitely.

Macaroni is a variety of dry pasta ,originating from Italy in the shape of narrow tubes, generally made with durum wheat, usually without egg. It is normally cut in short lengths; if cut in lengths with a curve it is usually called elbow macaroni. Some home machines can make macaroni shapes, but, like most pasta, macaroni is usually made commercially by large-scale . The curved shape is caused by different speeds on opposite sides of the pasta tube as it comes out of the machine.In North America, macaroni is most often made in elbow shape.

The name comes from the Italian *maccheroni* , plural form of *maccherone*. A different name, *chifferi* or *lumaconi*,refers to a bigger size of elbow-shape pasta. In addition to dishes similar to those made with other types of pasta, [macaroni and cheese](#) is a popular dish in England and other countries of Europe. A sweet macaroni pudding, similar to a rice pudding, is also often made
Macaroni proper, tubes at least 15 cm long with walls no thicker than 1.5 mm, comprise an extensive group of products.Elbow macaroni are 1.5 cm long.

3:Manufacture of pasta.

Raw Materials

Pasta is made from a mixture of water and semolina flour. Semolina is a coarse-ground flour of durum wheat high protein hard wheat that is grown specifically for the manufacture of pasta.

Eggs are sometimes added to the mixture for color or richness. Vegetable juices, such as spinach, beet, tomato, and carrot, can also be added for color and taste. Addition of herbs and spices such as garlic, basil, and thyme has become popular in recent years.

The Manufacturing Process

Mixing and kneading

Flavoring and coloring: Eggs are added to the mixture if the product to the manufacture of an egg noodle. If pasta is to be a flavored variety, vegetable juices are added to the mixture. To give colour to the pasta ,a tomato or beet mixture is added for red pasta, spinach for green pasta, carrots for orange pasta as well as herbs and spices can also be added for additional flavoring.

Rolling

- The mixture moves to a laminator where it is pressed into sheets by large cylinders

PASTA (Italian pasta, from Latin pasta "dough, pastry cake"barley porridge" is a generic term for foods made from an unleavened dough of wheat or buckwheat flour and water, sometimes with other ingredients such as eggs and vegetable extracts. Pastas include noodles in various lengths, widths and shapes, and varieties that are filled with other ingredients like ravioli and tortellini. The word pasta is also used to refer to dishes in which pasta products are a primary ingredient.

1. Semolina (made from durum wheat)
2. Water
3. Salt
4. Optional:
 - a. Eggs

- b. Spinach, tomato puree, chilli, mushrooms for flavour
- 5. Substitutes:
 - a. Rice, corn, spelt, kamut for semolina flour
 - b. Whole grain, non-grain, or soy-bean flour for semolina to make it more nutritious

- Three steps involve in pasta making,
 - 1. Mixing
 - 2. Processing
 - 3. Extruding
- Warm water (45-60°C) is added to bring the moisture content of the dough to 28-32%
- Spaghetti requires 16-18 minutes in the mixing chamber
- Hydrated semolina mixture drops directly onto the extrusion screw
- Screw brings mixture to extrusion barrel, where it is compacted.
- Pressure increase from to 2 MPa to form a compact dough
- Screw continues to move dough along to extension plate
- Purpose: to reduce moisture content to 12% to extend shelf life
 - Limits bacterial growth
- Four factors involved:
 - Humidity
 - Temperature
 - Time exposure to heat
 - Air flow
- Air flow and time exposure affects humidity and temperature

Pasta comes in all shapes and sizes. The tiniest shapes are often used in soups, long ribbons or strands with sauces, and tubes and fanciful shapes in casseroles and pasta salads. Some shapes are large enough to be stuffed and baked, and others, like ravioli, come already stuffed. Pasta normally is white-yellow, but other colors exist. Red pastas can be colored with beets or its juice, green pasta with spinach, orange or red with tomatoes, and etc.

Worms' pasta

Angel hair

Spaghetti

Ears' pasta

Hat's pasta

Pillows' pasta

Bows' pasta

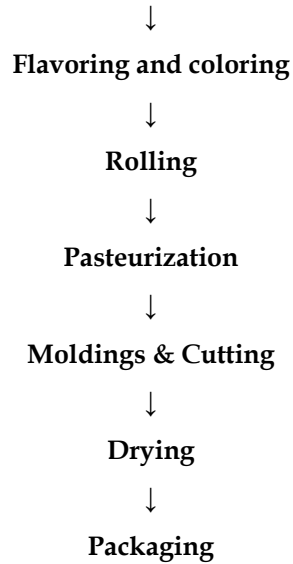
wagon wheel shaped pasta.

Pasta is available in many different forms and sizes. The majority of the pasta shapes originated in Italy. Many types of noodles were created in Asian countries. There are 6 basic categories in which pasta shapes are found. Penne is one of the most famous Italian pasta shapes, and is a specialty of the Campania Region in southern Italy. Penne, which means "pen" in Italian, Rotini means "twists," Fusilli, this charming shape was inspired by the "fuso", a type of spindle used in Italy.

Ziti are tube-shaped pasta gets its name from the word "zita" or bride. In Naples, ziti is the classic pasta served for weddings as as the "zita's pasta". Farfalle (called Bow Ties in America). These shapes are inspired by "butterflies" and bring cheer to any family dinner. Conchiglie a shape that resembles a seashell

General method of pasta preparation

Mixing and kneading



Pasta generally prepared from ,Durum wheat ,it belongs to the family:Poaceae and a species *T.durum*.

Family:Poaceae

Sub family: Pooideae

Genus: *Triticum*

Species: *T.durum*

Durum wheat or **macaroni wheat** (*Triticum durum* or *Triticum turgidum* subsp. *durum*) is the only [tetraploid](#) species of [wheat](#) of commercial importance that is widely cultivated today. It was developed by [artificial selection](#) of the domesticated [emmer](#) wheat , strains formerly grown in Europe .

Durum in [Latin](#) means "hard", and the species is the hardest of all wheats. Its high [protein](#) content, as well as its strength, make durum good for special uses, the most well-known being [pasta](#). Durum wheat is used extensively in bread making. However, it is unusual in that, despite very high protein content, it is low in

desirable [gluten](#) needed to form a glutinous web necessary for bread to rise. As a result, 100 percent durum wheat breads do exist.

Wheat and are supplemented substantially with commercial white flours, often those higher in gluten necessary to offset the poor gluten contribution of durum flour. When durum flour is used as the sole flour in bread, substantial additions of isolated wheat gluten are necessary for rising to occur. Without it, 100 percent durum wheat breads are often heavy, with very close grain, and will split easily when raised for baking.

Commercially produced dry [pasta](#), or pasta secca, is made almost exclusively from durum [semolina](#). Certain home made fresh pastas (pasta fresca), such as [orecchiette](#), cavatelli, and malloreddus, also use durum wheat, while others, such as [tagliatelle](#), use only soft wheat, often "00," or a combination of soft and hard wheat's.

In the American [Great Plains](#), durum wheat is used almost exclusively for making pasta products such as spaghetti and macaroni. In the Middle East and North Africa, local bread-making accounts for half the consumption of durum. Some flour is even imported. On the other hand, many countries in Europe produce durum in commercially significant quantities

- Higher fiber content which makes you feel fuller for a longer period of time and promotes digestive health
- Lower in calories than regular pasta
- Lots of protein in whole grain pasta which aids in cell repair, growth, and development
- Loaded with vitamins and minerals which contain antioxidants that reduce the risk of heart disease, cancer, and diabetes.

Pasta made fresh

Now a day's pasta making machine also called pasta makers is used. Ingredients to make pasta dough include semolina flour, egg, salt and water. Flour is first mounded on a flat surface and then a well in the pile of flour is created. Egg is then poured into the well and a fork is used to mix the egg and flour. There are a variety of ways to shape the sheets of pasta depending on the type required. The most popular pasta and shape include penne, spaghetti and macaroni.

4: Preservation of pasta

1. If **pasta** noodles not cooking properly, let them dry on a baking sheet for 1 to 2 minutes, dust well with flour so the strands will not stick together, and loosely fold them or form into small nests. Let dry for about 30 minutes more, then wrap and refrigerate for up to 2 days.

Pasta Shapes

There are more than 600 pasta shapes world wide

Penne -comes from the latin "penna" meaning feather or quill can be lisse (smooth) or regate (ridges)

Macaroni elbows - Can be topped with any sauce, baked, or put in soups, salads and stir-fry dishes.

Rotini ("Spirals" or "Twists") - Rotini's twisted shape holds bits of meat, vegetables and cheese, so it works well with any sauce

Jumbo Shells - Best when stuffed with your cheese, meat or vegetables

Bow Ties, Farfalle ("Butterflies") - Bow Ties brighten any meal with their interesting shape. Thick enough for any sauce, or make into a salad or soup

Spaghetti or "A Length of Cord" - Spaghetti Bolognese - The UK and USA's favourite pasta dish.

Wagon Wheels, Ruote or "Wheels" - Wagon Wheels make interesting salads, casseroles and stir-fry dishes. Add to soups, or simply top with sauce and enjoy

Lasagne - Create new Lasagne casseroles by using chopped vegetables, cheeses and any kind of sauce

Rigatoni or "Large Grooved" - Rigatoni's ridges and holes are perfect with any sauce, from cream or cheese to the chunkiest meat sauces

Table: 1 Cup of Cooked pasta contains

no		g
1	Calories	190
2	Fat (g)	0.9
3	Dietary Fibre (g)	1.8
4	Protein (g)	6.2
5	Carbohydrate (g)	38-40
6	Cholesterol (mg)	0

Traditionally fresh pasta was produced by hand, sometimes with the aid of simple machines, but today many varieties of fresh pasta are also commercially produced by large scale machines, and the products are broadly available in supermarkets.

Pasta Production

Pasta production by country in 2011 (in tonnes)

Italy-3,316,728.

U S 2,000,000

India, 1,00,000

Brazil 1,300,000

Maxico -3,30,100

Source: IPO Annual Survey on World Pasta Industry (October 2012)

Pasta is mostly starch because it is made of flour. It also contains other minerals and vitamins either directly from wheat or from artificial enrichment. Whole wheat pasta contains considerable amounts of minerals such as magnesium, iron, calcium, potassium, zinc, selenium and manganese. Pasta also contains a small amount of sodium, and Pastas also contains vitamin B, which includes folic acid and niacin.

Pasta and Healthy:

- Pasta is popular because it is nutritious, Is convenient to buy and prepare
- Has a long shelf life

There is a consistent and mounting body of nutrition science for the healthfulness of pasta and the pasta meal, a delicious way to eat vegetables, legumes and other healthy foods often under consumed. These experts agreed that pasta continues to be a health-promoting and nutritious food. Pasta includes other grains, as well as fruits, vegetables, olive oil, beans, legumes, nuts, seeds, herbs and spices as the basis of the Mediterranean Diet, one of the healthiest eating patterns in the world. Pasta is also a key ingredient in other healthy traditional eating patterns around the world like the Asian, Latin American and vegetarian diets.

Many reports and studies since decades indicated that following a Mediterranean Diet, which has been recognized by UNESCO as an intangible heritage of humanity, may lower the incidences of major chronic diseases such as type 2

diabetes, heart disease, and some types of cancer, and may help people live longer. The Mediterranean Diet can also help people achieve weight loss and weight management goals, reduce asthma, resist depression, nurture healthier babies, and ward off Parkinson 's disease.

Whole wheat is a very good source of manganese and dietary fiber. It is also a good source of copper, magnesium, and pantothenic acid. This profile includes information on nutrients, including carbohydrates, sugar, soluble and insoluble fiber, sodium, vitamins, minerals, fatty acids, amino acids and more. Eating foods high in insoluble fiber, such as cereals and breads made from whole wheat, can help women avoid gallstones.

Pre-menopausal women eating the most fiber (>30 grams daily) more than halved their risk of developing breast cancer, enjoying a 52% lower risk of breast cancer compared to women whose diets supplied the least fiber (<20 grams/day).

Fiber supplied by whole grains offered the most protection. Pre-menopausal women eating the most whole grain fiber (at least 13 g/day) had a 41% reduced risk of breast cancer, compared to those with the lowest whole grain fiber intake (4 g or less per day)

Nutritional Value of Wheat

Wheat is rich in catalytic elements, mineral salts, calcium, magnesium, potassium, sulfur, chlorine, arsenic, silicon, manganese, zinc, iodide, copper, vitamin B, and vitamin E. This wealth of nutrients is why wheat is often used as a cultural base or foundation of nourishment. Issues like anemia, mineral deficiencies, gallstones, breast cancer, chronic inflammation, obesity, asthenia, tuberculosis, pregnancy problems and breastfeeding problems are quickly improved by consuming whole wheat. Wheat is also recommended to treat sterility. Since germinated wheat comprises 2 or 3 times more vitamin B than common wheat; the seeds are used for useful for treating

gastrointestinal conditions, skin diseases, respiratory illnesses, and cardiovascular ailments. Wheat is also known to help balance cholesterol levels and protect the heart.

5:Conclusion:

Pasta is an Italian food made from dough using flour, water and eggs. When talking about the origin of pasta, a distinction needs to be made between fresh and dry pasta. . Pastas may be divided into two broad categories, dried and fresh Pasta comes in different textures and shapes.

Pasta is mostly starch because it is made of flour. It also contains other minerals and vitamins either directly from wheat or from artificial enrichment. Whole wheat pasta contains considerable amounts of minerals such as magnesium, iron, calcium, potassium, zinc, selenium and manganese and small amount of sodium. Pastas also contains vitamin B, which includes folic acid and niacin. Has a long shelf life. Whole grain pasta is healthy for every meal and research also suggests that the regular consumption of whole grains translates into lower blood pressure and a reduced risk of heart attack, stroke, diabetes, and cancer.

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