

Simple Sourdough Whole Wheat Noodles and Pasta

Plain Asian noodles and Italian pasta are essentially the same product. The main difference is that Asian noodles, especially Chinese noodles, are likely to be made with soft white wheat. Italian pasta ideally, is made with durum or emmer wheat. Both pasta and noodles can be made with whole wheat flour, provided extra hydration time is allowed for the dough flour. Some sourdough can also be added, to advantage; it will favorably change the flavor a little, reduce the risk of unwanted microbial contamination and will make the dough sufficiently acidic to encourage the release of minerals bound by phytic acid.

Here the method for making the pasta is first to make exceedingly stiff dough and then to roll it out partially by hand, and eventually with the aid of hand-turned rollers on a pasta-rolling machine. The dough can be prepared in a kitchen mixer using the paddle, but a preferred way is to use a food processor.

Too little water in the dough will make it almost impossible to roll out without crumbling, too much water in the dough will make the final pasta sticky and too fragile to hang up to dry. The actual amount to use will depend on the flour used and the ambient humidity.

The sheeted dough can be cut into ribbons, *fettuccine*, using the pasta-rolling machine.

Once made, the pasta can be cooked immediately, or it can be air dried so that it can be stored for a year or more.

Stone ground whole wheat flour is recommended, because the stone milling process is gentle on the starch granules. If these starch granules are damaged then there may be an increased loss of solids into the cooking water for the pasta. Soft wheat produces relatively large flakes during stone milling, whereas the very hard durum and emmer wheat varieties produce fine particles of bran. For this reason soft wheat is best made into thin wide ribbons, so that the bran lays flat. Narrow thicker dough strips, the size of spaghetti and made with soft wheat, tend to break up on cooking, where the bran flakes are present. Durum and emmer wheat are better suited to this shape, known as *chitarra*.

Hard red wheat is not particularly recommended for whole wheat pasta, because the pasta produced has a somewhat less favored texture, and flavor, and takes much longer to cook.

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<i>Ingredients</i>	<i>Bakers per Cent</i>	<i>Grams</i>	<i>Ounces</i>	<i>Cups & Spoons</i>
Stone ground whole wheat flour	100	500	16	3 cups
Water (approximate amount)	40	200	6.4	$\frac{3}{4}$ cup
Mature sourdough	10	50	1.6	2 tablespoons

Making the pasta dough

- [] Weigh the flour into a food processor bowl fitted with a metal blade.
- [] Separately weigh the water and stir the mature sourdough into the water, mixing well.
- [] Pour the water and sourdough mixture into the food processor.
- [] Process the dough until the flour and water are thoroughly mixed and the dough form coarse particles.
- [] Remove the dough from the food processor and form a very firm dough ball. Leave the dough ball in a bowl, tightly covered so that it does not dry out.
- [] Store the dough at cool room temperature, below approximately 77°F (25°C) for 4 - 6 hours. *If the dough will not be used after that time, store at 40°F (4°C).*

Shaping the pasta

- [] Divide the dough into 8 pieces, round each piece and return to the covered bowl until used.
- [] Using hands and rolling-pin, press and roll a dough piece into a rectangle on a hardwood board. Cut in half with a metal dough cutter, and layer one half on top of the other. Again press and roll into a rectangle.
- [] Repeat until the dough piece is thin enough and flexible enough to pass through the first setting of the pasta-rolling machine. *Ideally the cut will be made alternately at right angles to produce truly laminated dough.*
- [] Cut the machine-rolled sheet in half and layer one half on top of the other. Tidy the shape into a rectangle and roll again through the pasta machine lowest setting.
- [] These processes are repeated, through each successive roller setting, until a neat suitably thin flexible rectangular sheet of dough is produced that is the width of the rollers, and the desired length for the final ribbons.
- [] Finally the dough sheet is sent through the cutters on the machine to produce the desired ribbons.
- [] The pasta can be cooked immediately or dried on a rack in the shade at ambient temperature, and in a slight draft to prevent the pasta from curling.

Cooking the pasta

- [] Bring a pan containing a generous amount of salted water to a full rolling boil. Add the pasta and boil until the pasta just becomes toothsome. Usually this takes 3 minutes for thin ribbons made from soft white wheat, durum or emmer wheat.
- [] Lift the pasta from the cooking water with a pasta lifter, and serve.