### 1.1. What is tea?

Tea is a drink made by infusing leaves of the tea plant (*Camellia sinensis*, or *Thea sinensis*) in hot water. The name 'tea' is also used to refer to the leaves themselves; and it is also the name of a mid- to late-afternoon meal in the British Isles and associated countries, at which tea (the drink) is served along with various foods.

# 1.2. What are the different kinds of tea?

The three main categories are green, black, and oolong. All three kinds are made from the same plant species. The major differences between them are a result of the different processing methods they undergo. Black teas undergo several hours of oxidation in their preparation for market; oolongs receive less oxidation, and green teas are not oxidized at all.

There are, of course, many different varieties within these three main categories.

## 1.2.1. What are some of the most popular varieties?

### Black, unblended:

Assam (India)

Ceylon (Sri Lanka)

Darjeeling (India)

Keemun (China)

Nilgiri (India)

Sikkim (India)

Yunnan (China)

### **Popular blends:**

English Breakfast

Irish Breakfast

Russian Caravan

### **Scented/Flavored:**

Jasmine (China; green, scented with jasmine flowers)

Earl Grey (international; black, scented with oil of bergamot)

Lapsang Souchong (China and Taiwan; black, scented with smoke)

Many varieties of flavored teas

### **Oolong:**

Ti Kuan Yin [Tai Guanyin] (Mainland China)

Formosa Oolong (Taiwan, many varieties)

#### Green:

Genmaicha (Japan)

Gyokuro (Japan)

Spider Leg (Japan)

Mattcha (Japan, used in the Tea Ceremony)

Sencha (Japan)
Hojicha (Japan)
Genmaicha (Japan)
Longjing [Lung Ching, Dragon Well] (China)
Baozhong (China)
Gunpowder (China)

Other:

Pu-erh (China)

Detailed descriptions follow in § 3.

## 1.2.2. What about herbal teas?

Hundreds of different herbs have been used in beverages. These are sometimes called herbal teas. Tea professionals and connoisseurs usually prefer to restrict the name 'tea' to real tea, so you may see the following names used as well:

- A) 'Herbal infusion', which simply means a drink made by steeping an herb in hot water. (Tea itself is an infusion of tea leaves.)
- B) 'Tisane' [pronounced tee-ZAHN], which in French means any herbal drink.

Some common herbs that are used as tisanes are peppermint, chamomile, rose hips, lemon verbena, and fennel. A number of companies specialize in producing herbal blends. Many tea companies also sell tisanes.

Some exaggerated claims have been made for the medicinal properties of herbal infusions. Even so, some herbs do have generally recognized benefits. For instance, rose hips contain vitamin C; chamomile helps many people relax; and peppermint has a noticeable soothing effect on the stomach. Herbs can also cause problems. Chamomile, for example, can cause allergic reactions in people who are allergic to ragweed.

### 1.3. Where does tea come from?

Tea has been an item of trade and tribute for at least three thousand years. It was first cultivated and brewed in China, and many of the best varieties still come from China. Some of the finest oolongs in the world are grown in Taiwan. Japan also produces a considerable amount of green tea, most of which is consumed domestically.

After the British took up tea drinking, they began cultivating the plants native to India in order to have more control over the trade. India, Sri Lanka, and other South Asian countries produce a large portion of the world harvest.

## 1.3.1. Is any tea grown commercially in other regions?

Indonesia (primarily in Java and Sumatra) produces a considerable harvest each year, most of which is exported for use in blends.

Tea is also grown commercially in Turkey, Russia, Africa (notably Kenya), and South America. (Follow this link for a complete list of tea-growing countries.) Some of it is noteworthy, but not

much. In addition to good genetic "parentage," the right growing conditions are crucial. The best tea, with few exceptions, is produced in warm, mountainous regions. There are not many such areas outside Asia that have been given over to tea production.

### 1.3.2. Where did the name 'tea' come from?

The word for tea in most of mainland China (and also in Japan) is 'cha'. (Hence its frequency in names of Japanese teas: Sencha, Hojicha, etc.) But the word for tea in Fujian province is 'te' (pronounced approximately 'tay'). As luck would have it, the first mass marketers of tea in the West were the Dutch, whose contacts were in Fujian. They adopted this name, and handed it on to most other European countries. The two exceptions are Russia and Portugal, who had independent trade links to China. The Portuguese call it 'cha', the Russians 'chai'. Other areas (such as Turkey, South Asia and the Arab countries) have some version of 'chai' or 'shai'.

'Tay' was the pronunciation when the word first entered English, and it still is in Scotland and Ireland. For unknown reasons, at some time in the early eighteenth century the English changed their pronunciation to 'tee'. Virtually every other European language, however, retains the original pronunciation of 'tay'.

### 1.4. How is tea produced?

The first step in tea production is the harvest. Most harvesting is still done by hand, which (as you can imagine) is very labor-intensive. Some growers have had success using a machine that acts much like a vacuum cleaner, sucking the leaves off the branch. The latter method is used for the cheaper varieties of tea, as it is not capable of discriminating between the high-quality tip leaves and the coarser leaves toward the bottom of the branch.

The harvested leaves can be processed in two ways: CTC or orthodox.

CTC, which stands for "crush, tear, curl," is used primarily for lower-quality leaves. CTC processing is done by machine; its name is actually fairly descriptive. The machines rapidly compress withered tea leaves, forcing out most of their sap; they then tear the leaves and curl them tightly into balls that look something like instant coffee crystals. The leaves are then "fired," or dehydrated.

Most tea connoisseurs are not very interested in CTC tea, since this process does not allow for the careful treatment that high-quality leaves merit. But CTC has an important and legitimate role in the tea industry: since it is a mechanized process, it allows for the rapid processing of a high volume of leaves which otherwise would go to waste. It is also good for producing a strong, robust flavor from leaves of middling quality; in fact, for many varieties of leaf CTC is the preferred processing method.

The orthodox method is a bit more complex, and is usually done mostly by hand. The process differs for black, green, and oolong teas. The basic steps in the production of black tea are withering, rolling, oxidation, and firing.

First, the leaves are spread out in the open (preferably in the shade) until they wither and become limp. This is so that they can be rolled without breaking.

Rolling is the next step. This is rarely done by hand anymore; it is more often done by machine. Rolling helps mix together a variety of chemicals found naturally within the leaves, enhancing oxidation. After rolling, the clumped leaves are broken up and set to oxidize.

Oxidation, which starts during rolling, is allowed to proceed for an amount of time that depends on the variety of leaf. Longer oxidation usually produces a less flavorful but more pungent tea. Many texts refer to the oxidation process by the misleading term "fermentation." However traditional and evocative the term may be, I think it is best avoided. Oxidation of tea leaves is a purely chemical process and has nothing to do with the yeast-based fermentation that produces bread or beer.

Finally, the leaves are heated, or "fired," to end the oxidation process and dehydrate them so that they can be stored.

Oolong is produced just like black tea, except that the leaves are oxidized for less time.

Green tea is not oxidized at all. Some varieties are not even withered, but are simply harvested, fired, and shipped out.

# 1.5. What are the best kinds of tea?

# 1.5.1. How is tea graded?

The first thing to keep in mind is that these are descriptions of the dry, cured leaf *only*. They have no necessary relation to the aroma, color, or flavor of the end product. It is possible to get a delicious cup from ugly, broken leaves; it is possible to get an awful cup from well-handled, beautiful whole leaves. But since you may have little information to work with other than the grade, let's look at the various grades.

There are different grading schemes for black and green teas.

Here are the basic grades of black tea: Flowery Orange Pekoe (peck-oh), Orange Pekoe Pekoe

Pekoe Souchong Broken Orange Pekoe Broken Orange Pekoe Fannings Broken Pekoe Fannings

Dust

'Pekoe' (pronounced 'PECK-oh') is derived from a Chinese word meaning 'white'; this referred to the white hair on the leaf bud. Early Western merchants used the word to mean that the leaves so graded were exclusively plucked from the tip of the branch: the leaf bud and the two leaves below the bud. Its use in India and Sri Lanka broadened to mean whole leaves of a uniform size, and this is what it generally means now. This may include leaves picked from lower on the branch.

'Flowery Orange Pekoe' is often abbreviated 'FOP'. The term 'flowery' apparently refers to the leaf bud, since actual tea flowers are not used in the preparation of the drink.

'Orange' is variously described as a reference to the Dutch House of Orange or as a reference to an old Chinese practice of including orange blossoms as a flavoring agent. Whichever story is true, Orange Pekoe leaves are higher quality than Pekoe leaves.

'Souchong' means large leaves, generally not from the tip of the branch.

Processed tea is sieved to ensure that leaves of uniform size are packaged together. Fannings and dust are bits and pieces of tea leaves left over from the sievings that separate out whole leaves and large pieces of leaf. Fannings are slightly larger than dust.

Loose tea is generally whole leaves. Bagged tea is usually Broken Orange Pekoe and Broken Pekoe, fannings, and dust. The broken grades are created by mechanized crushing of the leaves. Broken leaves infuse more quickly, which is desirable in a tea bag. But because of their larger surface area, broken leaves also become stale more quickly.

Since much of the bagged tea sold in the US is marked "Orange Pekoe," many people think that Orange Pekoe is a special kind of tea. But it is not. It is a grading measurement that applies only to the size and physical condition of the leaves, not their kind or quality. Most tea that is labeled "Orange Pekoe" is blended black tea, typically from India and/or Sri Lanka.

High-quality Darjeelings are often graded according to a complex (one is tempted to say baroque) system including terms such as TGFOP and FTGFOP. One r.f.d.t reader was under the impression that these abbreviations stood for "Too Good For Ordinary People" and "Far Too Good For Ordinary People." Not a bad guess, in my opinion. Here's what they actually stand for:

- **TGFOP**: Tippy Golden Flowery Orange Pekoe. 'Tippy', 'Golden', and 'Flowery' are all references to the leaf bud at the tip of the branch. (Buds have a lighter color than fully formed leaves, hence 'golden'.)
- **FTGFOP**: Fancy [or Fine] Tippy Golden Flowery Orange Pekoe. 'Fancy' is a term also used in the grading of oolongs.
- **SFTGFOP**: Super-Fine [Fancy] Tippy Golden Flowery Orange Pekoe.

When dealing with Darjeelings, you may also see the following terms:

- **Estate**: names the plantation where the leaves were grown.
- **Vintage**: means that the leaves are the product of one harvest, and are not blended with any others.
- **First Flush**: the leaves were plucked in the first growth of the season. It usually produces a very light, delicate drink.
- Second Flush: second-growth harvest. More robust and complex than first flush.
- Autumnal Flush: harvest after the rainy season.

#### Green tea:

There is no uniform grading terminology for green tea. Chinese greens are graded differently depending on where they came from. Japan may have a more universal grading scheme, but my information is incomplete on this subject.

Some terms that you may find with regard to Chinese green teas are:

- **Gunpowder**: (pellets, tightly rolled from young leaves and buds)
- Young Hyson: (young leaves rolled long and thin)
- Imperial: (pellets loosely rolled from older leaves)
- Twankay: (unrolled leaves of poor quality)

Gunpowder is rolled very tightly; the leaves look like small pellets. The Chinese term for this tea, Zhucha, means 'Pearl Tea'. It is grown in Zhejiang province, near Shanghai.

## Oolong:

Grading for oolongs goes from Fanciest or Extra Fancy (best) to Common (worst). Unlike other grading systems, this one actually rates the quality of the drink you can get from the leaves. The top grades are Fanciest or Extra Fancy, Fancy, and Extra Choice (or Extra Fine).

**1.5.2.** I like the bagged tea I buy at the grocery store. Why all the fuss about First Flush Vintage Super-Fine Fancy Golden Tippy Flowery Orange Pekoe Estate tea?

The whole point of drinking tea is to enjoy yourself. If you like the tea you're drinking right now, then that is all that you or anyone else needs to know.

It can be fun, though, to try a fancy tea now and then. If you like tea in general, why not? This may entail using a teapot and/or strainer (see below, § 2.2.), since bagged tea does not come in as many varieties as loose. Who knows? You may eventually find yourself becoming a connoisseur, like many other readers of rec.food.drink.tea.

If there's a good coffeehouse or specialty tea shop in your area, you may be able to try a cup of an expensive tea without making a big investment. Also, many tea retailers sell sample-size (one-or two-ounce) containers.

# 1.5.3. Is there something wrong with tea bags?

Occasionally, tea connoisseurs will express contempt for tea bags, for the following reasons: 1. Most of the tea that goes into bags is not very high quality. As noted above, tea bags usually contain broken grades so that they will infuse quickly. 2. Whole-leaf teas come in a larger number of varieties; and the most interesting and enjoyable teas are sometimes not available in bags. 3. Bags are semi-non-biodegradable additions to the biodegradable tea leaves. 4. Connoisseurs like to have something to sneer at.

Seriously, though, most tea drinkers use tea bags some of the time, simply because it may not be convenient to brew loose leaves (at work, for example). Use what works for you.

# 1.6. Is fancy tea much more expensive than standard commercial tea?

Most good tea is not very expensive; and it may be cheaper than you think. When you buy tea in bags, most of what you pay for is the process of putting the teas in the bags, and the brand name advertising. Fancy tea is generally sold loose, and the price per cup is often lower than for commercial tea

Of course, as with most things, you can spend a lot for tea if you try. But if price is a concern, start small. Some truly fine teas retail in the United States for less than US\$20 per pound, which

means less than 10 cents per cup. (I'm told that tea prices outside the United States are roughly comparable.) Unfortunately, high quality loose leaf tea is typically not available in supermarkets; you will probably have to seek out a specialty shop or a mail-order company.

## 2. Preparing tea

- 2.1. Using a tea bag
- 2.2. Using a teapot
  - 2.2.1. Why use cold tap water? Wouldn't hot tap water boil faster?
  - 2.2.2. Why bother pre-heating the teapot? Is it necessary?
  - 2.2.3. What kind of teapot should I use?
  - 2.2.4. Loose tea, tea bags, what's the difference?
  - 2.2.5. How much tea should I use?
  - 2.2.6. What about tea balls, strainers, etc.?
  - 2.2.7. How hot should the water be?
    - 2.2.7.1. What is a tea cozy, anyway?
  - 2.2.8. How seriously should I take the time limits?
  - 2.2.9. Should I put milk in my tea?
    - 2.2.9.1. Should the milk go in the cups before or after the tea?

## 2.1. Using a tea bag

This is the most straightforward method. Place the bag in your cup and pour boiling water over it. Remove the bag when it has steeped long enough.

Oddly enough, most restaurants in the United States are incapable of performing this simple procedure

# 2.2. Using a teapot.

First, a general guide; details below.

- A) Start with fresh, cold water. Tap water is often acceptable; if your tap water has a noticeable taste, you may want to use filtered or bottled water. Put the water in a kettle to boil.
- B) Prepare a teapot: heat it by filling it (or rinsing it) with hot water.
- C) Shortly before the water in the kettle boils, empty out the teapot and add the tea leaves. You may want to put the leaves loose in the pot, or use a strainer, sock, or tea ball. You can, of course, also use tea bags in a pot. If you do, place the bags on the bottom of the pot so that they will be struck by the boiling water as it falls on them.
- D) Bring the teapot to the kettle and add the water. For most black and oolong teas, add the water just after it reaches a full boil. See below for more detailed information.
- E) Allow the tea to infuse for three to five minutes. Be careful not to let the tea stand for too long. Different teas take different infusion times. See below.

- F) During the infusion, give the teapot a good shake or stir to let the leaves circulate. After they settle, pour the tea. Some authorities recommend using cups that have been pre-heated with hot water. This is primarily important if you are using very thin porcelain that could be cracked by the sudden addition of very hot tea.
- G) Add whatever accessories you prefer: milk, sugar, honey, lemon, etc. Cream is usually too heavy and should be avoided. There is considerable debate about whether to put milk in the cups before you add the tea or afterwards. See below.

### Enjoy!

# 2.2.1. Why use cold tap water? Wouldn't hot tap water boil faster?

Household water heaters heat water for washing, not for drinking. Water out of the hot tap generally has health-threatening levels of heavy metals (such as lead), as well as an off taste. You should consider this water unfit for human consumption.

Incidentally, if you live in the United States in a house whose plumbing system was constructed between the 1930s and the late 1970s, it's a good idea to let the cold tap run at full for about a minute before using it. This will help flush out heavy metals that may have collected in the water as it sat in the plumbing system. This goes for all tap water consumption, of course, not just for tea.

Some tea drinkers start with filtered water, particularly in areas with unpleasant or unhealthy tap water. Although this can improve the quality of the final product, some filtration systems have an annoying disadvantage. Systems that filter the water and then store it in a reservoir (such as the popular Brita system) often yield flat, odd-tasting tea. This may be because these systems produce de-oxygenated water. Some people recommend using filtered water immediately after it has been filtered, or re-oxygenating the water by pouring it vigorously between two glasses about five or six times.

Another problem with filtered water is that it is usually very "soft" water, lacking the minerals normally found in well and spring water. This can also affect the flavor of the brew. One way of increasing the mineral content of filtered water is to add a pinch of salt, as ancient tea sages did to rain water.

# 2.2.2. Why bother pre-heating the teapot? Is it necessary?

It's not absolutely necessary, but it does keep the infusion from cooling off too quickly. Tea experts believe that this helps preserve some of the more subtle components of a fine cup of tea. Some people also like to place a tea cozy over the pot while the tea infuses, for the same reason. Note that green and oolong teas often benefit from slightly cooler water than black tea, so using a cozy during infusion is not recommended for these varieties.

### 2.2.3. What kind of teapot should I use?

There are many different kinds of teapots, all with their own particular good points and bad points. Ceramic pots are traditional throughout most of Asia; most retain heat well (depending on the thickness of the ceramic) and many are attractively decorated. But, like all ceramics, they can chip and break.

Thick glass pots have all the advantages (and disadvantages) of ceramics, with the important difference that you can watch the tea infuse.

Some people like metal pots. Their main disadvantage is that they conduct heat away from the infusion more rapidly than do ceramics. Some are also rumored to give an off taste to the drink.

# 2.2.4. Loose tea, tea bags, what's the difference?

High-quality tea is usually sold as loose tea. In addition, tea in bags goes stale much more quickly because of its greater surface area (and hence greater exposure to atmospheric oxygen); and it tends to pick up odors and flavors from surrounding foods (or, I'm told, from the box it's in).

Still, bags can be very convenient, especially if you are preparing tea away from home. It may be a good idea to store bagged tea in a tightly closed metal or opaque glass container to help keep it fresh longer.

# 2.2.5. How much tea should I use?

There is no real consensus about this matter. A traditional bromide is that one should add "one teaspoon for each person, plus one for the pot." But this does not specify how much water each person gets, or exactly how big a teaspoon is. I have seen recommendations ranging from one teaspoon per 5.5 ounces of water to one teaspoon per 16 ounces of water — and these also do not explain how big a teaspoon is, or whether they mean level teaspoons or heaping teaspoons.

Some tea drinkers weigh their tea on a kitchen scale. Those who do so may find the figure of 15g of leaves per liter of water useful; this produces a very strong cup and should be adjusted as desired.

I doubt that there is any reliable figure that applies to all tea drinkers. The amount of tea you should use depends on many variables. If you plan to add milk and sugar to your tea, you should probably add more leaves. If you are brewing fresh, high-quality leaves, you can use fewer. The ultimate guide is personal taste: it is advisable to experiment and decide on the amount that suits you best.

# 2.2.6. What about tea balls, strainers, etc.?

There are many different options for dealing with loose leaves.

- A) Leaves loose in the pot. Advantages: The leaves have maximum freedom to uncurl and circulate in the water, which makes for stronger and more flavorful tea. Disadvantages: You have to figure out some way to get the tea off the leaves once it has infused. Also, you have to wash the leaves out of the pot. If you use loose leaves and are brewing one cup, you can pour the tea through a strainer, which will catch any leaves that escape the pot. If you are brewing more than one cup, you can try any of the following:
- --Warm two pots and pour the brewed tea into the second pot. You may want to place a tea cozy over the pot to keep the remaining tea hot.
- --Pour the brewed tea into a vacuum container.
- B) The tea ball. Most tea balls are made of aluminum with small holes for water circulation. Advantage: Easy to remove and clean. Very few leaves escape. Disadvantages: often, there is

insufficient space for the leaves to expand. Also, the water cannot circulate properly around the leaves.

- C) The stainless-steel mesh infuser. This is, as the name implies, made of stainless-steel mesh. Advantages: better circulation than an aluminum ball. Easy to remove and clean. Disadvantages: the leaves are still more restricted than they would be loose. Infusers also come in plastic mesh and gold mesh. Some are sized to fit into a teacup; some, to fit a pot.
- D) The basket filter. This is a metal, plastic, or ceramic basket to hold the leaves. (Some teapots are specially constructed to hold a filter.) Advantages: easy to remove and clean. The leaves can circulate almost as freely as if they were loose. Disadvantages: Slight additional expense. Not all baskets fit all teapots. Specially constructed teapots are expensive.
- E) The tea sock. A fabric enclosure for the leaves. Advantages: Easy to remove, fairly unrestrictive of the expanding leaves. Disadvantages: Annoying to clean. It may retain odors from previous batches.
- F) The paper filter. This is like a coffee filter and fits into a plastic holder. Advantages: easy to remove and discard. Disadvantages: The paper is disposable, which may have unwanted environmental consequences.
- G) The plunger pot. Similar to the melior pot used for brewing coffee, the plunger pushes the leaves to the bottom of the pot and holds them there. Advantages: completely free circulation of the leaves. Disadvantages: the leaves have not actually been removed from the liquor, so they continue to infuse. Also, you have to wash the leaves out of the pot just as with loose leaves.
- H) Brewing machines. One can also brew tea in a coffee maker, in much the same way that one brews coffee. A machine expressly designed to brew tea automatically has also recently been introduced to the marketplace. The biggest worry most tea drinkers have about these methods is that they heat the water somewhat short of the boiling point. While this is a good way to brew coffee, it is less than ideal for most kinds of tea. But it's also true that some very discriminating tea drinkers have reported good results with tea brewing machines. Some recent models have been effusively praised for the sophistication of their brewing procedures and the flavor of the tea they produce.

### 2.2.7. How hot should the water be?

Most black and oolong tea should be infused in water that has just achieved a vigorous boil. You may want to place a tea cozy over the teapot during infusion in order to avoid heat loss.

Green teas, however, are generally better suited to water that has cooled off slightly from the boiling point. This holds especially if the tea is high-quality (e.g. Japanese Gyokuro). The same is true for Baozhong, lightly oxidized oolong such as Tung Ting, and first flush Darjeeling. In general, the closer a tea is to green, the cooler the water should be. Experiment and see how you prefer it.

If you are concerned about overheating these sorts of delicate leaves, do not place a tea cozy on the pot during the infusion, as it keeps too much heat in the pot. (Using the cozy to keep tea

warm after it has finished infusing is fine.) Some authorities even suggest leaving the lid off the teapot when infusing green tea, to let some heat escape.

# 2.2.7.1. What is a tea cozy, anyway?

A tea cozy is a fabric cover (similar to an oven mitt) which is placed over a teapot in order to prevent heat loss. Cozies come in a variety of shapes and sizes. Most are designed simply to cover the entire pot, handle and spout. Some, however, are made with openings and elastic so that they cover only the body of the teapot, leaving the handle and spout exposed so that you needn't remove the cozy in order to pour the tea.

A cozy is primarily useful if you make several cups at a time and want the excess tea to remain hot in the pot until you're ready to drink it. Note that ceramic handles tend to become very hot when the pot is kept warm in this fashion. If you have never used a cozy, be careful!

## 2.2.8. How seriously should I take the time limits?

Pretty seriously. If you've ever tasted oversteeped tea, you know that it is bitter and astringentan all-around nasty experience. There is probably a little margin for error, but if you put the tea on to infuse and forget about it for half an hour, start over again.

Three to five minutes is fine for most varieties. Oolong, which is always large leaves, can benefit from a long steeping time such as four to six minutes. Darjeeling, interestingly enough, is often best with a steeping time between 90 seconds and three minutes. (Since it tends toward astringency, the short steeping time helps keep the balance of flavors right. This is especially true of first flush Darjeeling.)

Some people like their tea best when steeped for ten to fifteen minutes. This is often (but not always) because they drink their tea with large amounts of milk and sugar and want to make sure that they will also be able to taste the tea. If you prefer to drink tea without additional flavorings, a two-to-four minute infusion time will probably give you the best results. As always, you should experiment to see what suits you best.

# 2.2.9. Should I put milk in my tea?

If you like.

The classic additions to tea are:

honey; milk; sugar; lemon; milk and sugar; lemon and sugar; lemon and honey.

- -- Cream is too heavy for most teas and should be avoided in favor of milk.
- -- Like cream, whole homogenized milk is too heavy and strong tasting for most people. Low-fat or skim milk seems to work best. As always, though, this is just advice, not divine command. If you like cream or whole milk in your tea, that's reason enough to use them.
- -- Milk and honey don't seem to go very well together.
- -- Don't add milk and lemon. The acidic lemon juice instantly curdles the milk.

In any case, you should NOT add anything to green or oolong tea; they are meant to be drunk straight.

## 2.2.9.1. Should the milk go in the cups before or after the tea?

This question is a matter of great contention and bitter disagreement in Great Britain. Some people seem to approach it more fervently than they do matters of theology.

There is very little common ground in this debate. Perhaps the only thing both camps agree on is the historical fact that the earliest porcelain cups manufactured in England were likely to crack if very hot tea was poured directly into them. Placing the milk in the cup before adding the tea helped protect the cup. (Modern porcelain, however, does not need a milk buffer.) There is also some talk of "scalding" the milk, but some people say that milk-first scalds the milk; others, that tea-first scalds the milk. There is also disagreement about whether scalding the milk is good or bad; some say it improves the flavor, others that it ruins the milk.

Then there are those of us who consider the whole dispute somewhat akin to Scholastic debates about angels dancing on pinheads. One way to avoid the issue is to eschew milk completely. Still, I must admit that some tea (especially long-steeped English or Irish Breakfast) takes very well to a bit of milk.

## 3. Other ways to prepare and serve tea

- 3.1. Asia
  - 3.1.1. The Japanese Tea Ceremony
  - 3.1.2. The *gongfu* method
  - <u>3.1.3. Panyaro</u>
  - 3.1.4. Thai tea
  - 3.1.5. The Guywan
  - 3.1.6. Masala chai
- 3.2. Europe and the Americas
  - 3.2.1. Samovar
  - 3.2.2. English tea time
  - 3.2.3. Iced tea

# **3.1. Asia**

### 3.1.1. The Japanese Tea Ceremony

*Cha-no-yu*, or "hot water for tea," is a ceremony of great antiquity and depth. Like many of the ancient Japanese arts, it is viewed as a potential means of Enlightenment; in other words, it is a central part of *chado*, or the Way of Tea. It originated in China, where its practice eventually died out; but combined with elements of Zen, it remains a fascinating part of Japanese culture.

There are many different versions of the Tea Ceremony, varying according to one's teacher and his or her training. The features common to most versions are the following:

A) The ceremony always involves a host and several guests (but only a few). It can be held in a screened-off alcove of a main room, but those who can afford it build a teahouse and garden.

- B) The guests wait in a special waiting room until summoned by the host. They walk through the garden to the teahouse, which traditionally is elevated and has a three-foot-tall door (so that guests must crawl to enter the building).
- C) The host ceremonially decorates the teahouse with screens and a scroll or flowers.
- D) Guests are served a small meal including a sweet.
- E) The host brings in the tea utensils and begins preparing the tea. The water is boiled and the tea bowl and whisk are heated. The powdered tea is placed in a bowl and whisked to a thick consistency. After the guests drink the bitter tea, the host cleans the utensils and the guests (more or less ritually) examine and discuss the utensils.

The tea ceremony can last as long as four hours. The use of whisked powdered tea indicates the antiquity of the ritual. This method of preparing tea dates from the time of China's Sung dynasty, which lasted from the 900s to the 1200s.

Some commentators complain that the contemporary emphasis is often on ritual rather than on aesthetic or spiritual experience. Others find the ceremony tedious beyond description, and the tea ghastly and barely drinkable. At least one author also claims that most current students of the tea ceremony are more interested in matrimony than Enlightenment.

But impressions differ. Other participants assert that if one approaches the ceremony in the right frame of mind, it can be a very impressive, even Enlightening, experience.

# 3.1.2. The gongfu method

The Japanese tea ceremony is a metaphysical/religious ritual centered around tea. There is nothing quite comparable in modern China (though, as noted above, the Japanese ceremony originated in ancient China).

The Chinese do, however, have a special method for brewing tea, which can produce remarkable results. It is called the *gongfu* method. *Gongfu* means something like "skill and care." It is the root of the term often used for Chinese black teas, "Congou." (As "Kung Fu," it is also the term often used in the West for Chinese martial arts, which are more properly known as *Wu shu*. But I digress...)

The *gongfu* method is typically used for oolong and green teas. The best results are with oolong. The typical method uses a very small teapot, preferably a Yixing-style teapot, and small thimble-sized cups. If you do not have a *gongfu* tea set, you can approximate the method with an ordinary teapot, though the result may not be quite as good.

Genuine Yixing teapots are made of a sandy clay found near the town of Yixing in Jiangsu province. Most of the teapots sold in the West with the label "Yixing" are not actually made from Yixing clay; still, they seem to serve their purpose well enough. Yixing-style teapots are made in a wide range of shapes, and are not glazed. The porous interior of an unglazed pot is seasoned by repeated infusions of tea leaves, and does not need to be cleaned.

The method is essentially a series of brief infusions. The tiny pot is filled halfway (or more) with leaves. The host fills the pot with boiling water and immediately drains it to rinse the leaves. Then, the first infusion: the pot is filled with boiling water and the leaves infuse for less than a

minute. (One source says "four to five slow breaths.") This infusion has the strongest aroma. Some methods use two sets of cups: the tea is poured into the first cup and then poured from that cup into the second cup. One then smells the aroma left behind in the first cup, and drinks from the second cup.

The second infusion lasts slightly longer than the first; it has a weaker aroma but more flavor. Subsequent infusions take progressively longer; you may want to add a slow breath to each infusion. Some teas can take four to five infusions, or more.

Since this method requires a large amount of tea and several small cups (typically four), it is best done for a group of oolong lovers. It can be a very convivial occasion!

## **3.1.3. Panyaro**

Panyaro is a Korean tradition of tea preparation. It bears many similarities to the Chinese *gongfu* method, differing primarily in a higher level of formality and a few additional implements (notably a lipped cup used to cool the water before it is poured over the leaves). The teapot and cups are slightly larger than the small Chinese implements.

# 3.1.4. Thai tea

Thai restaurants often serve an orange drink called Thai tea, usually iced. To make this drink properly, you need to find the red leaf tea grown in Thailand, which produces a bright orange brew.

As you might imagine, red leaf Thai tea is difficult to find outside Thailand. Some Asian grocery stores do carry it, though. You may in any case be able to produce something like Thai iced tea simply by brewing your favorite black tea and then adding, to taste, sweetened condensed milk.

# **3.1.5. The Guywan**

The Guywan (also spelled Gaiwan; also called "Chung") is a simple but elegant system used in China to brew green and oolong teas. It consists of a straight-sided porcelain cup (without a handle), a lid, and a saucer. It can be used like a teapot to brew tea which is then decanted to a cup; or one can infuse the tea and then drink directly from the guywan. The lid is used to strain out the leaves and keep the tea warm.

### 3.1.6. Masala chai

Masala chai, or spiced tea, hails from the Indian subcontinent. There are almost as many recipes for masala chai as there are drinkers of it. The following recipe is not claimed to be definitive; it just happens to be my favorite. Adjust to your own specifications.

Makes: 2 large cups

2.5 cups (570 ml) water

6-8 green cardamom pods

5-6 whole black peppercorns

1-2 slices fresh ginger, peeled and diced

1 stick cinnamon, 1-2 inches long

1-2 cloves

2/3 cup (175 ml) milk

4 tsp sugar

2-3 tsp loose black tea (preferably India or Ceylon)

Put the water in a saucepan, add the spices, and bring to a boil. Turn down the heat and let simmer for 5 to 10 minutes. Add milk and sugar and bring to a boil (or heavy simmer). Add tea, turn off the heat, and let infuse for two to three minutes. Strain into two cups and serve hot.

## 3.2. Europe and the Americas

### **3.2.1. Samovar**

The samovar is a Middle Eastern invention now most often associated with the culture of Russia and its geographic and cultural neighbors. It is well suited to the needs of a large community of voracious tea drinkers, but unfortunately is not really practical as a means of producing an afternoon cup for the solitary enthusiast.

The samovar was traditionally a large metal container with a metal pipe running vertically through its center. To prepare tea, one filled the container with water, then put charcoal in the pipe and lighted it. When the fire was hot, one would place a teapot on top of the pipe and brew a strong concentrate of tea. The tea was served by pouring some of the concentrate into a serving glass, then diluting it with hot water from the main container. (I have provided the preceding instructions for informational use only; if you get an antique samovar, you should rely on the instructions that accompany it.)

Russians traditionally serve their tea in tall, straight-sided glasses, flavored with lemon or jam. Drinking the tea through a piece of rock sugar held between the teeth is also common.

I am informed that modern Russians now use electric samovars which are available in the west via mail order. (Keep in mind that European appliances need special adapters to work on American electrical current.) The brewing method is more or less the same as with the charcoal samovar.

### 3.2.2. English tea time

Tea time has been an important feature of British life for hundreds of years. Traditionally, the upper classes serve a "low" or "afternoon" tea around 4:00 PM, at which one might find crustless sandwiches, biscuits, and cake. Middle and lower classes have a "high" tea later in the day, at 5:00 or 6:00. It is a more substantial meal -- essentially, it's dinner -- which includes bread, meats, scones, and cake.

Apparently, many Americans have the impression that "high tea" is the meal served by "high-class" people. Actually, the names derive from the height of the tables on which the meals are served. Low tea is served on tables which in the United States would be called "coffee tables." High tea is served on the dinner table.

## 3.2.3. Iced tea

Iced tea is a staple of American Southern life; it is very popular throughout much of the United States, enough so that it is now being marketed in cans and bottles.

Good iced tea uses a decent brand of black tea which is then cooled (either in a refrigerator or by being poured over ice). Some people add sugar; others would rather drink muddy water than sugared iced tea. The sweetened vs. non-sweetened divide is probably the American South's version of the milk-first vs. tea-first rift among Brits. Some people also like to add lemon.

Iced tea is very easy to make. Infuse a strong concentrate of tea (i.e. much less water than one would use for that amount of leaves) and add it to cold water to the right proportions. The better the quality of the tea, the better the iced tea will taste. It's probably a good idea to use a strong-tasting tea that can stand up to the cold. Assam, for example, makes terrific iced tea.

An alternative method is to make sun tea: fill a large glass jar with water, put in tea bags or leaves, cover it, and put it in direct sunlight for several hours. When the tea is strong enough, pour over ice and serve. Although this method is fairly popular, it may be somewhat risky, as it involves using water that has not been boiled -- indeed, water that has been left out in the sun to reach ideal bacterial-reproduction temperatures. I recommend avoiding this sort of risk by always brewing tea with boiling or near-boiling water.

### 4. Descriptions of popular and noteworthy teas

### • 4.1. Black teas

- 4.1.1. Assam (India)
- 4.1.2. Ceylon (Sri Lanka)
- 4.1.3. Darjeeling (India)
- 4.1.4. Keemun (China)
- 4.1.5. Lapsang Souchong (China)
- 4.1.6. Nilgiri (India)
- <u>4.1.7. Sikkim (India)</u>
- 4.1.8. Yunnan (China)

## • 4.2. Popular blends

- 4.2.1. English Breakfast
- 4.2.2. Irish Breakfast
- 4.2.3. Russian Caravan

## • 4.3. Scented/Flavored tea

- 4.3.1. Jasmine (China)
- 4.3.2. Earl Grey
- 4.3.3. Lapsang Souchong
- 4.3.4. Tea blended with herbs
- 4.3.5. Flavored teas

## • 4.4. **Oolong**

- 4.4.1. Formosa Oolong (Taiwan)
- 4.4.2. Ti Kuan Yin (or Tai Guan-Yin) (Mainland China)

#### • 4.5. Green tea

- 4.5.1. Gyokuro (Japan)
- 4.5.2. Spider Leg (Japan)
- 4.5.3. Mattcha, Tencha (Japan)
- 4.5.4. Sencha, Bancha, Hojicha (Japan)
- 4.5.5. Genmaicha (Japan)
- 4.5.6. Longjing (China)
- 4.5.7. Gunpowder (China)
- 4.5.8. Baozhong (China)
- 4.6. Pu-erh (China)
- 4.7. White tea (China)

There are hundreds, perhaps thousands, of different teas. I only list the better-known teas that are available in the West. I am sure that I have left out your favorite tea, and I apologize in advance.

### 4.1. Black teas

Black tea is produced by allowing harvested leaf to wither and oxidize for several hours before the process is halted by firing (i.e. heating and drying out) the leaf.

# **4.1.1. Assam (India)**

This variety has orange or red liquor and a distinctive, "malty" flavor. It is a common component of high-quality blends, but is well worth seeking out unblended. Assam is reliably strong, full-bodied tea; many Irish Breakfast blends are entirely Assam.

## 4.1.2. Ceylon (Sri Lanka)

There are several varieties of Ceylon tea, but most of the Sri Lankan harvest goes into blends. Commercial blends advertised as "Orange Pekoe" are usually blends of India and Ceylon. This is probably closest to what most Westerners think of when they think of tea: reddish-brown liquor; brisk, full flavor.

## 4.1.3. Darjeeling (India)

This is the most expensive, sought-after black tea in the world. Unlike most other teas, many Darjeelings are sold under the name of the plantation where they were grown.

Unfortunately, a great deal of tea labeled 'Darjeeling' consists of blends containing only 50% Darjeeling. Worse, most of the Darjeeling contained in these blends is harvested during the rainy season and so is less flavorful. If you intend to buy real Darjeeling, make sure you are buying 100% Darjeeling, preferably first or second flush).

Fine Darjeelings usually have a lighter liquor than other black teas, from a light reddish color to a bright gold. Astringency is usually quite pronounced, and the aroma and flavor hint of almonds and wildflowers.

### 4.1.4. Keemun (China)

This is the foundation of many English Breakfast blends. (Some English Breakfasts are all Keemun.) Keemuns come in a remarkably large number of varieties. Most produce a red liquor with a subtle combination of flavors; the aroma is often rich and fruity, sometimes with

suggestions of plum and apple. Some Keemuns have a delicate smoky flavor (though not as smoky as Lapsang Souchong).

# 4.1.5. Lapsang Souchong (China)

This tea is fired over smoking pine needles, which produces a striking smoky odor and flavor. The best varieties are not overwhelmed by the smoke, but retain subtlety and a mix of other flavors. Lapsang Souchong is found in many Russian Caravan blends.

## 4.1.6. Nilgiri (India)

Nilgiri, Darjeeling, and Assam are the three Indian teas which the Indian Tea Board promotes as "self-drinkers," i.e. teas worth drinking unblended. Unfortunately, Nilgiri is not as distinctive or interesting as the other two. It is very much like Ceylon tea. Like Ceylon, much of the Nilgiri harvest ends up in blends.

## 4.1.7. Sikkim (India)

This variety comes from a tea-growing area very near Darjeeling. It combines Darjeeling's delicate flavor and light body with Assam's maltiness. Although it is an excellent tea, it is not very well known (yet) and thus not quite as expensive as Darjeeling.

## **4.1.8. Yunnan (China)**

Yunnan's brown liquor has a subtle, earthy, peppery flavor. Inexpensive Yunnan is not very exciting, but I am told that the higher quality harvests are wonderful. Some Yunnan is used in Russian Caravan blends.

# 4.2. Popular blends

There are more different blends of tea than can reasonably be mentioned in the space available, so I will restrict myself to listing the most well-known categories. The composition and proportions of a particular blend vary from dealer to dealer, and are sometimes well-guarded secrets. Blends may be restricted to teas from a particular growing area, but in most cases are not. Blends most commonly include tea grown in India, Sri Lanka, Indonesia, or Africa.

### 4.2.1. English Breakfast

Some English Breakfasts are blends of India and Ceylon teas; others, mostly or entirely Keemun.

## 4.2.2. Irish Breakfast

As mentioned earlier, this is usually mostly Assam--and very strong.

### 4.2.3. Russian Caravan

A popular blend, Russian Caravan harks back to the days when tea was hauled to Russia from China on camelback. It often contains a bit of smoky Lapsang Souchong, though its base is typically Keemun or Yunnan. Some also contain oolong.

# 4.3. Scented/Flavored tea (includes both green and black teas)

### 4.3.1. Jasmine (China, green)

Logically enough, this tea is scented with jasmine flowers. Some is made from Baozhong tea, but most is based on completely unfermented green. The highest quality is called Yin Hao. Jasmine tea ranges from abysmal stuff, where the flowers are used to mask the poor quality of the tea, to truly remarkable (and remarkably costly) delicacies.

### 4.3.2. Earl Grey (black)

This well-known British blend is scented with oil of bergamot. Bergamot is an unpalatable citrus fruit shaped like a pear; the oil is pressed out of its rind and sprayed on a blend of black teas. (There is also an herb called 'bergamot' which smells like oil of bergamot. The herb is not used in the production of Earl Grey.) There is no standard base for Earl Grey; its distinctiveness derives from the oil of bergamot. Some Earl Greys are quite good; others, unfortunately, are saturated with too much of the aromatic oil, or contain low quality leaves, or both.

Oil of bergamot has two unusual properties that deserve brief mention. One is that it can attack some kinds of transparent plastic, causing them to become opaque. This may cause concerns for people who store Earl Grey in transparent plastic containers. The other is that it contains chemicals called psoralens, which can induce sensitivity to sunlight in susceptible individuals. The sun sensitivity produces an odd darkening of the skin, which is called psoralen-induced photosensitive hyperpigmentation.

## 4.3.3. Lapsang Souchong

See above, § 4.1.5.

## 4.3.4. Tea blended with herbs

Many cultures blend tea with various herbs. One very popular combination, originating in Morocco, is a blend of green tea and spearmint.

**4.3.5. Flavored teas.** There are many different flavorings (too many to list) that can be added to tea. The most popular combination is probably orange and cloves.

### **4.4. Oolong**

Oolong is oxidized, but not for as long as black tea. It is in a sense "intermediate" between green and black, but good oolong should be judged on its own terms, and need not be compared to other kinds of tea. Most good oolongs have an intense floral aroma and a remarkable peachy flavor. Others have a vegetative quality like that of green tea. Liquor color ranges all over the spectrum, from a pale jade green to pink to deep gold.

## 4.4.1. Formosa Oolong (Taiwan)

Formosa oolongs, grown in Taiwan, have a long-standing reputation as the finest oolongs available. They are called the "Champagne of Teas," and rightly so in most cases. There are many varieties. Most that are commercially available in the West are not labeled with varietal or place names; the label usually just informs you that it is Formosa oolong and gives its grade. As mentioned above, oolong is graded according to quality, not just leaf size.

### 4.4.2. Ti Kuan Yin (or Tai Guanyin) (Mainland China)

If of good quality, this is a truly magnificent oolong, as good as many Formosa Oolongs. Its color ranges from pinkish to gold, and its peachy flavor is strong and rich. Retail price ranges from US\$20/pound to a jaw-dropping US\$200/pound.

## 4.5. Green tea

There are many varieties of green tea, most of which are little-known outside Asia. This list is only a tiny fraction of the varieties of green tea drunk throughout China, Japan, and India.

Green tea is not oxidized at all; the freshly harvested leaves are rolled and fired immediately. As a result, green tea usually has more of a vegetative or herbaceous quality than blacks or oolongs. Most greens produce a greenish-gold liquor. People who were raised on black tea often find green an acquired taste, but it is worth acquiring.

# 4.5.1. Gyokuro (Japan)

The most highly valued Japanese tea. Also known as "Pearl Dew," it is a surprisingly rich, herbaceous tea.

# 4.5.2. Spider Leg (Japan)

This is a "basket-fired" variety of Gyokuro, meaning that it is fired in bamboo baskets. The leaves turn out long and thin, hence the name "Spider Leg."

# 4.5.3. Mattcha, Tencha (Japan)

Mattcha is the powdered tea used in the famed Tea Ceremony. It is also called Tencha (before it is powdered).

### 4.5.4. Sencha, Bancha, Hojicha (Japan)

'Sencha' is a generic Japanese name for green tea, applying to most high quality tea other than Gyokuro. Bancha refers to late-harvested teas. Roasted tea is called Hojicha.

### 4.5.5. Genmaicha (Japan)

Genmaicha is sometimes called "popcorn tea" because of its unusual taste. It is green tea blended with toasted rice.

### 4.5.6. Longjing (China)

This tea is named after a famous well which is said to be the home of a dragon. The name (also sometimes spelled 'Lung Ching') means "Dragon Well." Supposedly, one should brew this tea with water from that well. Even with ordinary water, it produces a marvelous tea with a complex, subtle, almost sweet flavor.

# 4.5.7. Gunpowder (China)

This is a strong, earthy green.

## 4.5.8. Baozhong (China)

Also called Bao Jong or Pouchong, it is allowed to wither before firing; hence it is just shy of being oolong. It is sometimes regarded as a fourth basic category of tea, since it is intermediate in oxidation between green tea and oolong. Its flavor is intermediate between oolong and green,

and its aroma is strongly reminiscent of lilacs. Baozhong is used as the base for some very good Jasmine tea.

# 4.6. Pu-erh (Mainland China, Yunnan Province)

Pu-erh is an unusual large-leafed tea with a characteristic earthy flavor. (In some Chinese dialects, this tea's name is pronounced 'po lay'.) Its color is very dark, almost red. It is marketed in bulk as Pu-erh, shaped into cakes as Pu'er Cake Tea, or pressed into hemispherical pieces called "Tuo Cha," or "Bird's Nest Tea."

Pu-erh differs from other teas because it is "refermented," or oxidized a second time. This secondary oxidation sometimes is used to develop a thin layer of mold on the leaves. (Although this is unusual for most tea, skittish Western tea drinkers ought to keep in mind that mold is also a key ingredient in widely consumed Western products such as cheese.)

Pu-erh is renowned for its alleged medicinal effects on the digestive tract. Some Chinese, in fact, drink it only as medicine. In any case, it is an acquired taste. The term 'earthy' applies almost literally, as some pu-erh tastes remarkably like dirt. This is not a criticism, but novices should taste the tea before buying it.

## 4.7. White tea (China)

White tea is tea in which buds, rather than leaves, predominate. It is plucked from special varieties of the tea plant known as *Shui Hsien* and *Dai Bai*. The highest quality white tea is called *Baihao Yinzhen*, which means "white down silver needles." Less fancy varieties are called *Baimudan* (or Pai Mu Tan) and *Show Mee* (or Shoumei).

Also, in the bad old days, one might be offered a different sort of "white tea" in very poor Chinese homes: namely, a cup of boiled water.

### 5. Miscellany

- 5.1. How should I store tea?
- 5.2. What is the best way to clean pots and cups?
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  - 5.6.1. What is caffeine?
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- 5.6.6. Can tea be decaffeinated?
- 5.6.7. How can I get rid of a caffeine habit?
- 5.7. Professional tasters' lexicon

## 5.1. How should I store tea?

Tea should be stored in an airtight, opaque container in a cool, dry place. Many tea retailers sell tea in metal tins that close tightly, which seems optimal. Clear glass jars are acceptable only if you can keep them in a closed cupboard away from light. If you reuse containers, avoid using materials that retain odors, as the tea will pick them up.

The refrigerator is *not* a good place. The cold encourages water condensation, which can ruin the tea. You can freeze tea for long-term storage if you tightly seal your container and wrap it in plastic. Before you open a container of frozen tea, let it warm to room temperature in order to avoid contaminating the tea with condensation. (You may also want to do this on a dry day.)

# 5.2. What is the best way to clean pots and cups?

Even if you rinse your pots and cups after every use, which is advisable, they will eventually build up stains. Some people regard these stains as desirable, analogous to seasoning a wok. This seasoning is certainly desirable (and unavoidable) on unglazed equipment such as Yixing-style pots (see 3.1.2). Opinions differ on whether it is desirable on china, porcelain, or glazed earthenware pots.

Those who do want to remove tea stains face some minor complications. Most pots are not dishwasher safe. In addition, many people would rather not use soap or detergent on tea equipment, since they find that the drink picks up an off flavor. (As with most things about tea, opinions differ on this subject.)

The simplest way to rid yourself of stains without using soap is to brush the stains off with a soft kitchen brush or toothbrush. Baking soda (sodium bicarbonate) works surprisingly well as a cleaning agent. Just put some baking soda on the wet brush and scrub. Really tough stains can be softened by putting two teaspoons of baking soda into the pot and filling it with hot water. Let sit for an hour, empty, brush, and rinse.

Some people have reported good results by using a drop of chlorine bleach in a potful of water; but you must rinse the pot very carefully after this method!

### 5.3. What is rec.food.drink.tea?

Rec.food.drink.tea is a Usenet newsgroup devoted to the discussion of tea and related beverages. It was inaugurated in 1995 with the following charter:

Discussion relating to tea, the world's second most consumed beverage (after water), made by infusing or boiling the leaves of the tea plant (C. sinensis or close relatives) in water. Discussions of herbal teas (e.g. chamomile, sassafras, etc.) are also approved, but this newsgroup should NOT be used for advertising herbal tea products or discussing tea as anything other than a beverage. Tea-as-medicine discussions should take place in misc.health.alternative.

The FAQ was first written in 1995 and has gone through several revisions since then.

## 5.4. Can I grow tea plants myself?

As its botanical name suggests, the tea plant is a variety of camellia, and like other camellias it can be cultivated in a home garden. It is not well suited to indoor cultivation, though. It grows best outdoors in climates like its native ones: temperate, with warm summers and cool (not cold) winters. In the United States, the best climate is probably like that found in the Carolinas.

Large nurseries, particularly those that specialize in camellias, may be able to provide interested gardeners with tea plants ready for home growing.

### 5.5. Tea and health

The possible beneficial health effects of tea drinking have been widely publicized lately (1998-1999). Research in this area is still progressing, and I am not really qualified to explain the complex biochemical factors that appear to underlie tea's effects on health. So the following is no more than a brief, non-technical summary of some of the effects on health that have been tentatively identified. I encourage readers interested in further information to consult the many sources available on the Web and in journals on health and life extension. The following is presented for its informational value only, and is not to be regarded as medical advice. For medical advice, consult your doctor.

## 5.5.1. Cancer protection

Recent epidemiological studies suggest a lower tendency toward cancer in tea-drinking populations. It is hypothesized that this may have something to do with chemicals found in tea called polyphenols (or catechins, or tannins). These are chemically related but not identical to the tannins found in wine. Incidentally, tannic acid (used in tanning leather) is a kind of polyphenol, but it is *not* found in tea.

All forms of tea seem to have some anti-cancer effect, though the most pronounced effects have been reported for green tea. One or two cups a day seems to be quite sufficient for good results.

It should be understood that tea drinking is not a "magic bullet" for the prevention of cancer. At best, it can be one part of a healthy lifestyle that includes the following: not smoking or using tobacco in other forms; minimizing exposure to radiation, carcinogenic chemicals, and direct sunlight; eating a varied diet based mostly on grains, beans, and plenty of fresh fruit and vegetables; getting regular aerobic exercise; practicing self-examination for lumps or unusual areas on the skin; and getting regular medical checkups.

In any case, do not drink tea that is scalding hot. This practice *increases* the likelihood of cancer of the mouth and throat.

# 5.5.2. Fluoride content

Tea is well known as a good source of fluoride, which helps strengthen teeth. This is not a major concern for people whose municipal water is fluoridated, but it may matter to people who drink from wells (or who use water filters that filter out fluoride). As above, although this may help protect teeth, it is no substitute for brushing, flossing, and regular dental checkups.

## 5.5.3. Protection against dehydration

A perhaps unexpected benefit of tea drinking is the resulting increase in water consumption, which protects against dehydration. Since caffeine is a mild diuretic, the benefit is not quite as great as drinking plain water; but it is real nonetheless. Two cups of tea are approximately equivalent to one cup of plain water in their hydrating effect.

### 5.6. Tea and caffeine

# 5.6.1. What is caffeine?

Caffeine is a stimulant drug found in tea as well as in many other natural substances. Coffee is better known as a dietary source of caffeine (and the source of the name 'caffeine'), but tea contains a significant amount of the drug.

Other natural sources of caffeine are chocolate and yerba maté, which is used as an herbal drink in parts of South America. Caffeine is also added to many foods and drugs, including soft drinks and pain relievers such as Excedrin.

### 5.6.2. What are caffeine's effects?

Since it is a stimulant, caffeine increases alertness and quickness of response, and often briefly improves mood. It is a mild diuretic. In large doses, it can produce jitters, anxiety, and insomnia. As with any stimulant, the period of enhanced alertness and heightened mood is generally followed by a period of depressed mood and ability.

Caffeine is also an addictive drug if taken regularly. Caffeine addiction is probably the most common drug addiction in the world, with nicotine addiction a close second.

## 5.6.3. Should I worry about caffeine addiction? What are its effects?

Caffeine addiction is not as serious as most drug addictions; it is certainly less serious than nicotine addiction. It is also easier to shake than most other addictions. Still, caffeine addiction can be serious for some people. Since its effects are subtle and socially accepted, caffeine addiction can be an unnoticed and difficult to diagnose source of health problems.

One important side effect (and a frequent cause of medical advice to limit or stop caffeine use) is sleep disruption. Many other unwanted effects are associated not so much with use as with withdrawal. Prominent among these effects is the withdrawal headache, caused by dilation of blood vessels in the head that had been constricted by the consumption of caffeine. Other side effects of withdrawal, usually found in frequent and heavy users of caffeine, are lethargy, irritability, and constipation.

# 5.6.4. Can I become addicted to tea?

Addiction to tea is less common than addiction to coffee, because tea has less caffeine than coffee. But if you drink enough tea on a regular basis, you can become addicted. The most reliable sign that you are addicted to tea is a recurring headache that seems to have no cause and can be relieved by drinking tea or another caffeinated beverage (or by taking Excedrin, which contains caffeine).

If you are worried about addiction, the best thing to do is to cut down gradually on the amount of caffeine you consume. If you also drink coffee and caffeinated soft drinks or take medication

containing caffeine, eliminating these from your diet will make it easier for you to drink tea without fear of serious addiction.

# **5.6.5. How much caffeine does tea contain?** Does green tea have caffeine?

All real tea contains caffeine unless the tea has been artificially decaffeinated. (The only exception to this rule is Japanese kokicha, made from stems of the tea plant. Its caffeine content is negligible.) Tea also contains a related chemical called theobromine, which has similar (slightly milder) effects on the body.

The amount of caffeine in a cup of tea varies tremendously, depending on the variety of tea and the brewing time. (The most important factor in caffeine content of leaves appears to be the climate in which the plant is grown.) It has been widely claimed that green tea has less caffeine than black, but various sources (including a professional tea chemist) have informed me that this is not necessarily true. Although green tea often contains less caffeine than black, in some cases it may have just as much or more.

I can report that the most caffeinated tea I have ever had was green. In 1995, I ordered a small pot of Yin Hao jasmine at a local coffeehouse, unaware that this delightful, high-quality delicacy was eye-popping, jaw-clenching rocket fuel. After two small cups, my hands were trembling and I could barely sit still. In fact, that same afternoon, I sat down and wrote this entire document in twenty-five minutes.

[The last sentence is a joke. But everything else in the preceding paragraph is absolutely true.]

There is simply no reliable way, short of chemical analysis, of knowing exactly how much caffeine is in your cup; and chemical analysis is not terribly practical if you intend to drink the tea. My advice is to be mindful of how much you drink, and pay attention to how you react to a particular brand or sample of tea. There may be no better way to decide how to regulate your intake.

## 5.6.6. Can tea be decaffeinated?

There are some brands of decaffeinated tea on the market, but unfortunately their quality is rarely very high. It is very difficult (perhaps impossible) to remove caffeine from tea without degrading its quality.

On the other hand, it is possible to prepare ordinary tea so as to remove most (not all) of the caffeine from the finished product. Caffeine is very water-soluble, more so than many of the flavor components in tea. So a very brief infusion can remove much of the caffeine while preserving flavor.

Here's how to do it: boil enough water for twice as many cups as you intend to drink. Pour the normal amount of water over the leaves, then infuse for twenty to thirty seconds. Pour off the resulting brew and discard, retaining the leaves. Bring the water to a boil again and pour it over the same leaves, this time infusing for the normal three to five minutes. This infusion is the one to drink.

This method can also be used to prepare a highly caffeinated drink without many of the sedative components ordinarily found in the cup. Don't bother with a second infusion; just drink the

results of the twenty- to thirty-second infusion. One of my philosophical colleagues swears by it, saying it's the only source of caffeine that gives him a "clean burn." This method is, of course, not much use to those of us who drink tea for the flavor.

# 5.6.7. How can I get rid of a caffeine habit?

If you have a clear case of addiction that is interfering with your sense of well-being, you should try to quit. Breaking a caffeine addiction is, mercifully, relatively easy to do. Andrew Weil (in *Natural Health, Natural Medicine*) offers the following advice for those who want to try to kick the habit "cold turkey":

Do not attempt it unless you have three days with no responsibilities and no demands on your time and energy. Arrange for ways to keep yourself distracted and comfortable. Prepare to be without energy and to have a headache for forty-eight to seventy-two hours. Take nothing with caffeine.

Some people have lingering withdrawal symptoms for two or more weeks after ceasing intake.

If you are reluctant to kick the habit all at once, you may want to try gradually easing yourself off caffeinated drinks. This works well for some people and poorly for others.

## 5.7. Professional tasters' lexicon

This is from James Norwood Pratt, Tea Lover's Treasury.

## **Dry Leaf:**

- Bloom: sheen or luster on black leaf
- **Bold**: large leaf or sometimes pieces of leaf too big for a grade, outsized
- Chesty: resinous odor/taste imparted by uncured wood in tea chest
- **Common**: poor quality
- **Dull**: leaf without sheen, i.e., "bloom"
- Flaky: poorly made leaf that's flat and easily broken; nonpejoratively, small grades
- Shotty: well-made Gunpowder; sometimes also applied to Souchong
- **Tippy**: generous amounts of white or golden tip, i.e., budding leaf
- Well-twisted: fully withered, tightly rolled leaf
- Wiry: stylish, thin whole leaves; quite often OP grade

#### **Infusion:**

• Agony of the leaves: unfolding of the leaves in boiling water

#### Tea Liquor:

- **Bakey**: unpleasant taste caused by firing leaf at too high a temperature; not as strong as "burnt"
- **Biscuity**: pleasant characteristic often associated with Assam teas
- **Bite**: not a taste but the astringent puckeriness that gives Black Tea its refreshing quality
- **Body**: viscosity, the strength of the liquor combined with its weight on the tongue; body may be "full," "light," etc.
- Brassy: unpleasant tang caused by under-withering

- **Bright**: sparkling liquor characteristic of all fine teas; also describes taste opposite of "dull"
- **Brisk**: lively, not flat
- Complex: the harmonious melange of various flavors characteristic of the very finest teas
- **Dull**: muddy looking liquor, the opposite of "bright"; "flat" tasting
- Flat: soft, rather flabby-bodied tea lacking "bite" and "briskness"
- Fruity: piquant quality characteristic of good Oolongs, some Keemuns, etc.
- Gone off: tea that's been spoiled by improper storage or packing or is simply past its prime and stale
- Malty: a subtle underlying flavor often characteristic of Assam
- **Peak**: the high point of the tasting experience when, some instants after the liquor enters the mouth, its body, flavor, and astringency make themselves fully felt. Greens and Oolongs do not peak but stand immediately and fully revealed.
- **Pointy**: a liquor is said to "have point" if it shows some desirable property--for example, briskness or fine fragrance
- Pungent: astringent; what gives a tea its bite
- **Self-drinking**: any tea with sufficient aroma, flavor, body, and color to stand alone and in no need of blending for improvement
- Stewed or stewy: poorly fired tea giving soft liquor without "point"; also used of tea that's brewed too long and has become bitter
- Tarry: smoky flavor associated with Lapsang Souchong
- Thin: lacking body and/or color
- **Weedy**: may be applied to thin, cabbagy Black Teas; nonpejoratively, a Green Tea may be called weedy if it has a not-unpleasant vegetative aroma and flavor, varying from simple "herbaceousness" to scents of new-mown hay
- Winey: usually descriptive of a mellow quality fine Darjeelings or Keemuns acquire with six months to a year or more of age; more rarely used to describe over fermented tea