



# HERBAL TEAS

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# Use of plants

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- Food
- Weapon
- Fuel
- Shelter
- Poison
- Medicine

## Use of plants as medicine

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- In all primitive societies, "disease treatments" and "magic tricks" have been applied for the treatment of diseases first for a long time.
- Because they thought that the diseases are regarded god's work. So use of plants took time to be used as medicines.

# Treatment systems in the world

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- Unani (Greek) and Islamic medicine
- Chinese treatment system
- Ayurvedic treatment system (India)
- Siddha (South India) treatment system
- 19th century North American treatment system
- Central European treatment system
- Japanese Kampo treatment

# Treatment systems in the world

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- In relation to these treatment systems, which are widely used in the world, the number and type of herbal medicines and the efficiency and reliability in parallel with the publications are increasing.
- Asia is the region where these treatment systems are used most in the world.

## World Health Organisation's Reports

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- WHO reported that 65-80% of the world's population has never used synthetic medicines, and 75% has relied primarily on herbal medicines in their traditional cultures.
- Also 75% of the herbal remedies currently available in the United States were obtained as ethnobotanical information.
- In the United States, 25% of prescription drugs consist of natural products, and the other 25% are derived from natural products.
- In Russia, more than one third of the medicines are herbal origin.
- Germany, France, Italy, Spain and Sweden are leading countries in the sale and use of herbal medicines.

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- Herbal drugs and Herbal Teas are sold in the pharmacies in Europe,
  - In Turkey they are sold in herbalist's markets. Turkish pharmacists are trying to change this situation. Because;
  - Pharmacists are drug counselors who are competent and indispensable in medicine.
  - The only occupational group that is trained in medicinal plants, drugs and phytotherapeutics is pharmacists (Pharmacognosy education).
  - The only profession group is pharmacists who are educated about plants substances, their effects, their mode of use and their harm.

## Herbal Drug / Herbal Tea Preparation Steps

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• Plant culture / natural growing



• Collect / harvest



• Drying



• Preparation of raw material



• Storage



• Conservation / Protection



• Pilot studies



# Important points on preparation steps

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## ▪ **Manufacturer**

- The manufacturer must produce pharmaceutical products in accordance with their intended use and qualification requirements in accordance with quality, safety and efficacy requirements.
- The lack of quality, safety, and efficacy conditions puts the patient at risk.

## ▪ **Production quality**

- Because of the differentiation of the chemical content of plants grown naturally by being influenced from different conditions (climate, geography, soil structure, etc.);
  - Plants which are used as Herbal Medicine / Herbal Tea source, have to be cultivated plants,
  - Plants must comply with
    - GACP (Good Agricultural and Collection Practices)
    - GMP (Good Manufacturing Practice).

## ▪ **Safety/Efficacy**

- The safety of herbal medicine / tea depends on;
  - the toxicity of the compounds contained in the herbal drug or drug preparation which consist in the composition.
  - Contaminations (microbial toxin, pesticide, microorganism, radioactivity, toxic metals)
  - whether the herbal drug or drug preparation is misdiagnosed.

# The lack of quality, reliability, and efficiency causes

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- Gastrointestinal complaints
  - Increase in liver enzymes
  - Mental disorders
  - Allergic reactions
  - Heart complications
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- For example; The presence of herbal drugs as well as sibutramine and sibutramine derivatives in slimming preparations. Sibutramine is a toxic substance which can cause deaths.

## Legal regulation

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- Law no. 2004-5179 involves "Production, Consumption and Inspection of Foods".
- According to this law, the authority of the Food Supplements and Herbal Teas regulations is Ministry of Agriculture and Forestry in Turkey.
- Positive and negative lists are prepared by evaluating the effects of the substances contained in these products.
- Studies are being continued to limit the number of plants in the same herbal teas which are imported from different countries or grewed domestically, since they can cause the interaction.
- Aphrodisiac plants can not be used as food supplements by the decision of the Advisory Board.

## Permission criterias

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- Scientific literature knowledge that the plant is used for food supplements.
- What the product is (tea, food supplement, putty, etc.).
- The use of the plant in the product.
- From which country the plant or product will be brought.
- Declaration that the plant is being served for consumption for food which taken from the official authority of the country where the plant was produced.
- Free sales certificate indicating that the product has been sold in the European Union (EU).
- Product example.