



Herbal Teas & Health Risks



HERBAL TEAS

BLEND

Wide range of
flavours
Misidentification?

NATURAL

Safe?
Consumption period?

INGREDIENTS

The plants in the content?
Active components
Contaminants

INTERACTIONS

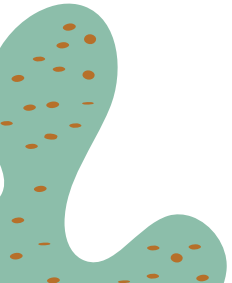
Medication

EFFECT

Benefit or risk?

QUALITY

Controls?
Contamination?



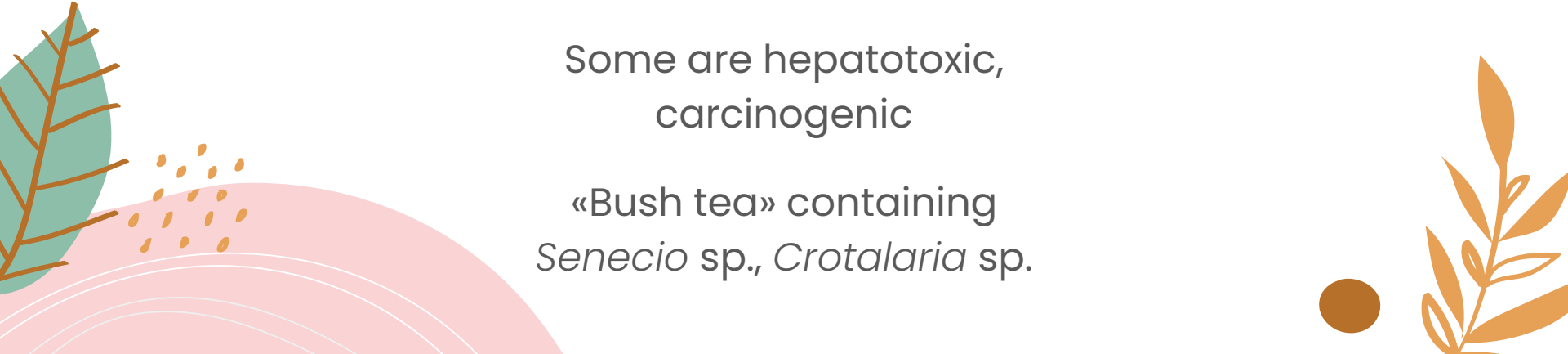


TOXIC COMPOUNDS

Pyrrolizidine alkaloids;

Some are hepatotoxic,
carcinogenic

«Bush tea» containing
Senecio sp., *Crotalaria* sp.





TOXIC COMPOUNDS

Cyanogenic glycosides;

cyanide poisoning

Prunus amygdalus var. *amara*,

Prunus virginiana...)





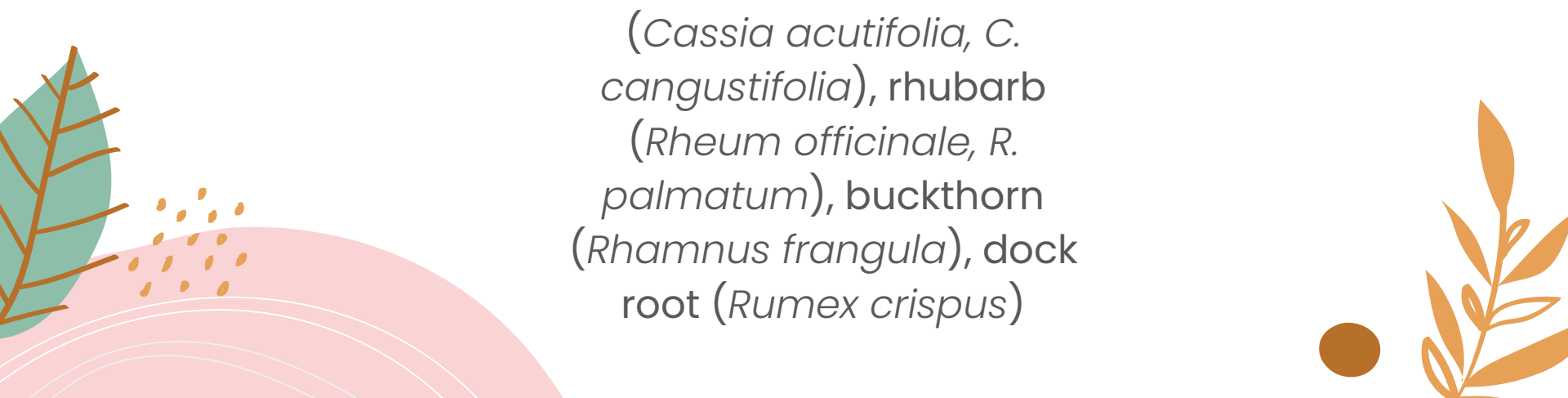
LAXATIVES

Dehydration
Severe diarrhea
Weakness
Coma
Peripheral neuropathy



LAXATIVES

Aloe (*Aloe barbadensis*), senna
(*Cassia acutifolia*, *C.*
cangustifolia), rhubarb
(*Rheum officinale*, *R.*
palmatum), buckthorn
(*Rhamnus frangula*), dock
root (*Rumex crispus*)




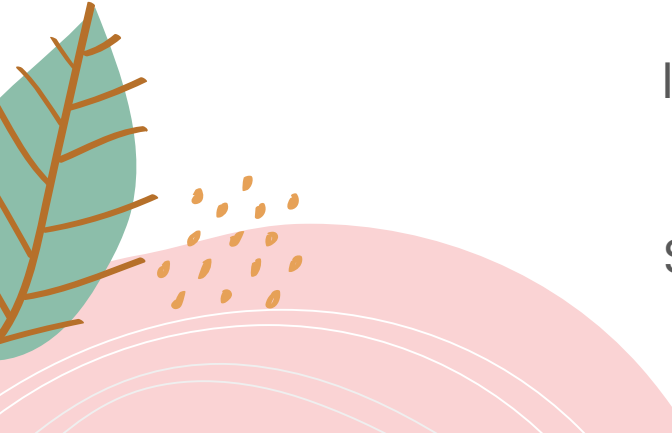


LAXATIVES

Sennae leaves/fruits,
anthraquinone content!

Not recommended for
women in pregnancy or
lactation period, children
under the age 12

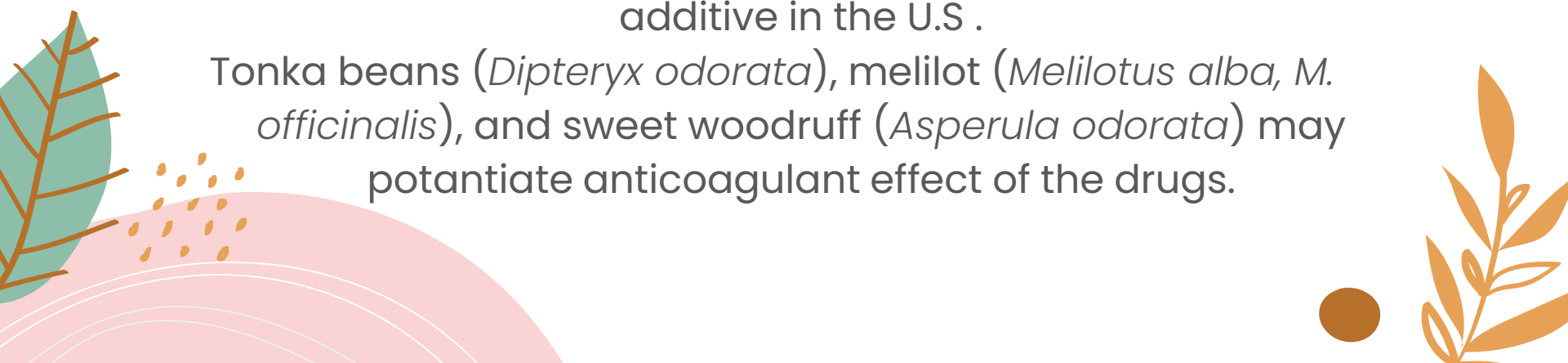
Shouldn't be used longer
than 15 days





DRUG INTERACTIONS

Bleeding risk caused by the plants containing coumarins. Coumarin has been prohibited by the FDA as a food or food additive in the U.S .



Tonka beans (*Dipteryx odorata*), melilot (*Melilotus alba*, *M. officinalis*), and sweet woodruff (*Asperula odorata*) may potentiate anticoagulant effect of the drugs.



DRUG INTERACTIONS

Tannins;

Antinutritive effect (some a.a & vitamins)

Tea, coffea, *Quercus* barks...





DRUG INTERACTIONS

Ginseng can reduce the effectiveness of anti-clotting medications and cause bleeding in post-menopausal women.

Ginkgo can cause bleeding risk.



ALLERGENIC PROPERTIES

Compositae allergy (etc.
chammomile, chrysanthemum,
goldenrod, yarrow, marigold)

Dermatitis

Anaphylaxis

Other severe hypersensitivity reactions



ALLERGENIC PROPERTIES

St. John's wort (*Hypericum perforatum*)

Delayed hypersensitivity

Photophobia

Photodermatitis





ESTROGENIC OR POSSIBLE ABORTIFACIENT PROPERTIES

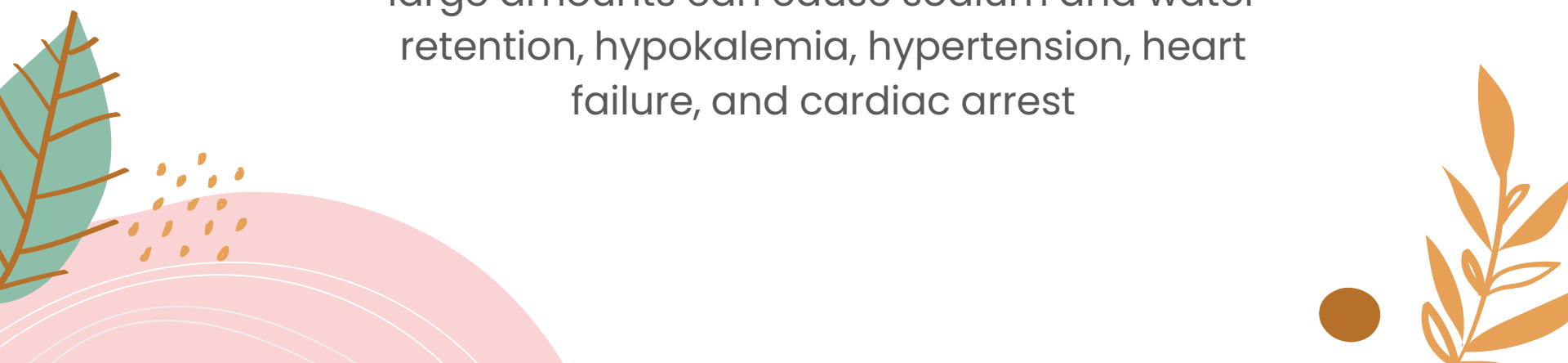
Devil's claw root (*Harpagophytum procumbens*) has oxytoxic properties and should be avoided during pregnancy.

Pennyroyal oil (*Hedeoma pulegioides*, *Mentha pulegium*) induce menstruation and known as an abortifacient.



CARDIOVASCULAR EFFECTS

The consumption of licorice (*Glycyrrhiza glabra*) in large amounts can cause sodium and water retention, hypokalemia, hypertension, heart failure, and cardiac arrest





CONTAMINANTS

Heavy metals (Al, Pb etc.)
Pharmacological agents



BİTKİ LİSTESİ

(Güncelleme tarihi: 05/12/2022)

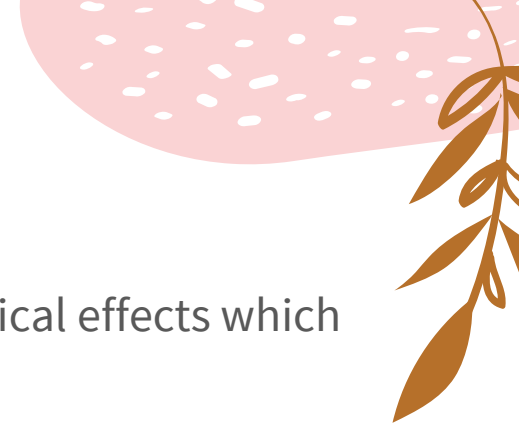
SIRA NO	LATİNCE İSİM ⁽¹⁾	İNGİLİZCE İSİM / KULLANILAN KISMI ⁽¹⁾	TÜRKÇE İSİM	KULLANILAN KISMI ⁽¹⁾	POZİTİF/NEGATİF ⁽²⁾
1	<i>Abies sp.</i>	Fir, shoots	Gökmar, Kökmar	Sürgünler	P
2	<i>Acacia arabica, A. senegal</i>	Acacia	Arap zamkı	Zamkı	P
3	<i>Acer saccharum</i>	Sugar Maple		Gövdeden Elde Edilen Usare	P
4	<i>Achillea biebersteinii</i> Afan. (Syn.: <i>A. micrantha</i>)		Pire otu, Sarı civanperçemi	Toprak üstü	P
5	<i>Achillea millefolium</i>	Yarrow, flowers	Civanperçemi çiçeği	Çiçek	P
6	<i>Achillea millefolium</i>	Yarrow, herb	Civanperçemi	Toprak üstü	P
7	<i>Acorus calamus</i>	Sweet Sedge, Sweet Flag, rhizome	Eğirkökü	Rizom	N
8	<i>Acorus gramineus</i>	Japanese sweetflag, rhizome		Rizom	N
9	<i>Acorus tatarinowii</i>	Acorus, rhizome		Rizom	N
10	<i>Actinidia chinensis</i>	Kiwi, fruit	Kivi	Meyve	P
11	<i>Adiantum capillus-veneris</i> L. (Sin.: <i>Adiantum africanum</i> R. Br., <i>Adiantum capillus</i> Sw., <i>Adiantum coriandrifolium</i> Lam.)	Southern maidenhair fern, true maidenhair, venus hair fern / Herb	Baldırıkara, Venüssaçı	Toprak üstü	N
12	<i>Adonsonia digitata</i>	Baobab		Meyve	P
13	<i>Aesculus hippocastanum</i>	Horse-Chestnut, bark	At Kestanesi	Gövde Kabuğu	P
14	<i>Aesculus hippocastanum</i>	Horse-Chestnut, flowers	At Kestanesi	Çiçek	P



507	<i>Rhamnus frangula</i> L. (Sin.: <i>Frangula alnus</i> Mill.)	Bourdain, Alder Buckthorn, Glossy Buckthorn, Breaking Buckthorn	Barut Ağacı	Gövde kabuğu	<p>P <i>Rhamnus frangula</i> kabuk kısımları hazır ambalajlı hale getirilerek tüketiciye sunulmalıdır.</p> <p><i>Rhamnus frangula</i> kabuklarının tek başına kullanıldığı ürünlerde;</p> <p>•Bitki kabukların günlük alım miktarında toplam antranoitler (<i>glukofrangulin A</i> cinsinden hesaplanmalı) 14 mg'dan fazla olmayacak şekilde tüketilecek günlük miktar belirlenmeli ve günlük tüketim miktarı etiket üzerinde belirtilmelidir.'</p> <p><i>Rhamnus frangula</i> kabuklarını içeren karışım halindeki ürünlerde;</p> <p>• Bitki kabuk kısımları ile birlikte ürün bileşiminde antrakinon içeren birkaç bitki yer aldığına, ürünlerde günlük alım miktarında toplam antranoitler (<i>glukofrangulin A</i> cinsinden hesaplanmalı) 14 mg'dan fazla olmayacak şekilde tüketilecek günlük miktar belirlenmeli ve günlük tüketim miktarı etiket üzerinde belirtilmelidir.'</p> <p>Ayrıca bu bitkiyi içeren gıdanın etiketinde aşağıdaki uyarılar yer almalıdır: -"Hamileler, emzirenler ve 12 yaş altı çocuklar tarafından kullanılmalıdır." "15 günden fazla kullanılmalıdır."</p> <p>UYARI: Gıda İşletmecileri, 31/08/2022 tarihine kadar yukarıda yer alan düzenlemeye uymak zorundadır. 31/08/2022 tarihinden önce piyasaya arz edilen gıdalar 31/12/2023 tarihine kadar piyasada bulunabilir.</p>
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CAUTION !!!

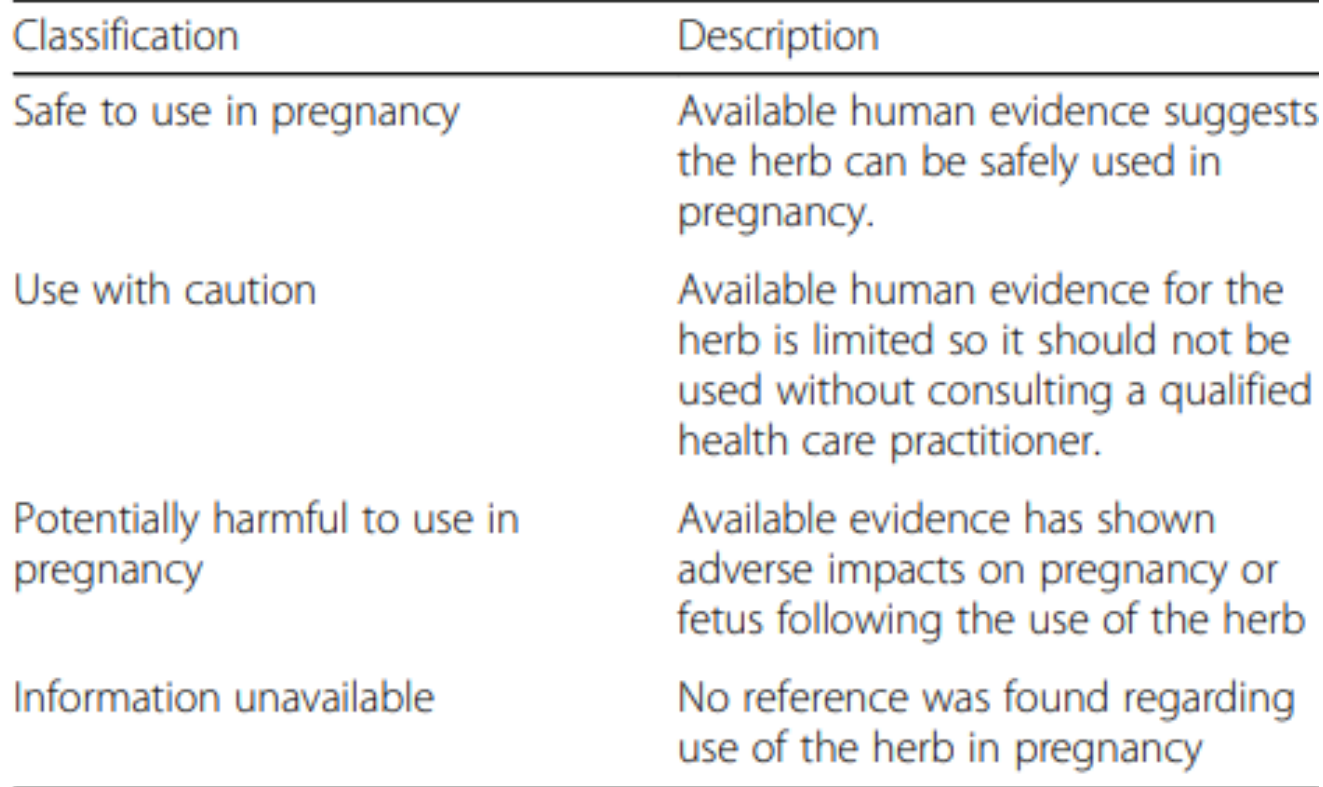
- Some herbal teas and medications possess pharmacological effects which may cause or contribute to medical problems.
- The pharmacological effect of herbal teas and remedies may affect other therapy prescribed for the patient.
- Patient histories should include the amount and type of all herbal teas and remedies patients are taking.





HERBAL TEAS IN PREGNANCY PERIOD

~ 39% of pregnant women used herbal medicines that were potentially harmful or for which sufficient information on safety was unavailable



Classification	Description
Safe to use in pregnancy	Available human evidence suggests the herb can be safely used in pregnancy.
Use with caution	Available human evidence for the herb is limited so it should not be used without consulting a qualified health care practitioner.
Potentially harmful to use in pregnancy	Available evidence has shown adverse impacts on pregnancy or fetus following the use of the herb
Information unavailable	No reference was found regarding use of the herb in pregnancy

Safety in Pregnancy Period

Safe to use in pregnancy period

Ginger (*Zingiber officinale*)

Clinical evidence in human pregnancy have not found any harmful effect to mother or fetus. (As powder drug max 1 g/day)

Olive (*Olea europaea*)

Clinical human evidence have not found any harmful effect to mother or fetus.

Peppermint (*Mentha piperita*)

Evidence in human pregnancy following use as tea has not shown any harmful effect to mother or fetus. Excessive dose should be avoided due to its emmenagogue properties.

Aniseed (*Pimpinella anisum*)

Safe to use in human pregnancy with normal doses. It increases the action of warfarin, so it is not recommended for women on warfarin.

Cranberry *Vaccinium oxycoccus*

No negative fetal or pregnancy outcomes were identified in clinical studies.

Safety in Pregnancy Period

Safe to use in pregnancy period

Chamomile
(*Matricaria chamomilla*)

Can be safely used as tea in moderate amounts during in human pregnancy. It may act as a uterine stimulant, so large doses and prolonged use in pregnancy should be avoided.

Green tea
(*Camellia sinensis*)

Safe to use as tea in moderate quantity. Pregnant women are recommended to avoid large quantities due to the caffeine content.

Eucalyptus
(*Eucalyptus globulus*)

Should only be used topically.. In rare cases, oral ingestion may cause nausea, vomiting and diarrhea [30]. Due to known toxicity and unknown effects during pregnancy, its ingestion should be avoided.

Olibanum
(*Frankincense - Boswellia sacra*)

Not harmful to human mother or fetus in moderate doses for mild ailments. Its resin in high doses is an emmenagogue and may induce abortion.



Safety in Pregnancy Period

Use with caution

**Basil (*Ocimum
basilicum*)**



It has not been studied in human pregnancy and should not be used in doses higher than commonly found in food

**Oregano
(*Origanum
vulgare*)**

It has not been studied in human pregnancy and should not be used in doses higher than commonly found in food.

**Raspberry (*Rubus
idaeus*)**

The intake of raspberry did not have negative fetal or pregnancy outcomes; however there are some findings showing that it may promote uterine contractions.



Safety in Pregnancy Period

Information unavailable about safety in pregnancy

**Cumin (*Cuminum
cyminum*)**

Information regarding safety in human pregnancy is lacking. In India, it is used as an abortifacient. Large doses in animal studies have shown antifertility activities. Therefore, doses higher than commonly found in food should be avoided.

**Chicory
(*Cichorium
intybus*)**

Not studied in human pregnancy, so the safety has not been conclusively established.

Safety in Pregnancy Period

Potentially harmful in pregnancy period

Pennyroyal
(*Mentha pulegium*)

Use of the volatile oil in pregnancy is not recommended as it has been reported to cause abortion if taken in high doses. It contains potentially toxic compound pulegone and should be avoided.

Licorice
(*Glycyrrhiza glabra*)

Not recommended during pregnancy because of possible alterations of hormone levels and the association with preterm delivery.

Sage (*Salvia officinalis*)

Not to be used during pregnancy due to abortifacient properties. The pure essential oil and alcoholic extracts should not be taken during pregnancy.

Ammi (*Ammi visnaga*)

Human or animal studies not available in current literature but its active constituent, khellin, has uterine stimulating activity; therefore, it is contraindicated during pregnancy.

Safety in Pregnancy Period

Potentially harmful in pregnancy period

Thyme (*Thymus vulgaris*)

Human or animal studies not available in current literature but potentially harmful due to its abortifacient activity.

Fenugreek (*Trigonella foenum-graecum*)

Evidence suggests abortifacient effects on animals showed stimulating effects on uterus. It also possesses hypoglycemic, hypolipidemic and hypothyroid properties.

Cinnamon (*Cinnamomum verum*)

Animal evidence suggests possibility of fetal malformation following ingestion of its essential oil. Should only be used in doses commonly found in food.

Motherwort (*Leonurus cardiaca*)

It is used due to its potentially beneficial effect on the nervous system as a cardiotonic, however it is not recommended due to its emmenagogue action.


Lovage (*Levisticum officinale*)

It acts as a bitter yielding an impact on the digestive system, but it is not recommended due to its emmenagogue action


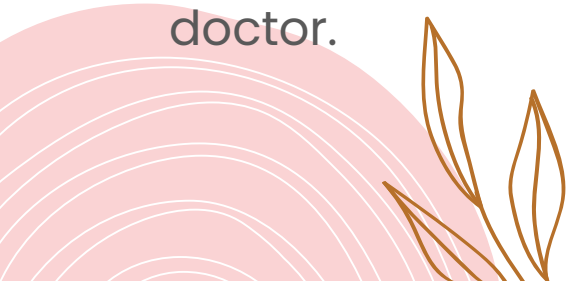


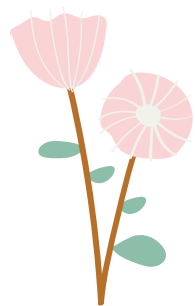
HERBAL TEAS FOR CHILDREN

The use of herbal teas by infants in the first year of their life is not recommended.



Infants under 6 months of age should not be given anything except breast milk or formula, unless recommended by a doctor.

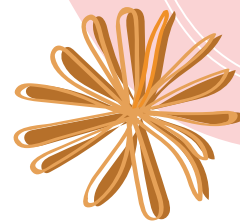




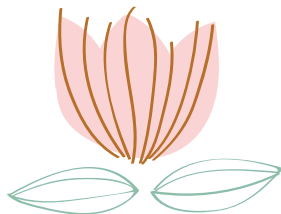
*Verbena
officinalis*



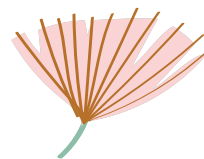
*Matricaria
chamomilla*



*Glycyrrhiza
glabra*



*Foeniculum
vulgare*



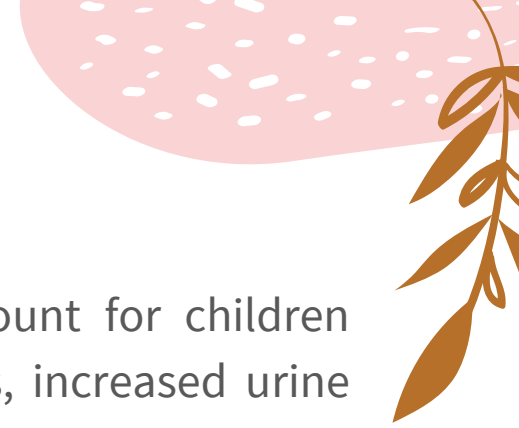
*Melissa
officinalis*

CAUTION !!!

- Fennel tea is regularly used for the treatment of gastrointestinal complaints such as colic, bloating and flatulence.
- The concentration of fennel essential oils, and of estragole in particular, within fennel infusions or instant teas for infants, is 1000-fold less in comparison to the maximum level of estragole accepted as a food additive by European regulation.
- The concentration values of estragole ranging from 9.3 to 911.7 $\mu\text{g/l}$ in instant tea, 250.3 to 1718.1 $\mu\text{g/l}$ in tea obtained infusing intact dry fruits or freshly broken dry fruits, and 241 to 2058 $\mu\text{g/l}$ in infusions prepared from teabags were determined.

CAUTION !!!

- Caffeine, a stimulant, isn't recommended in any amount for children under age 12. It may cause insomnia and nervousness, increased urine output and decreased sodium/potassium levels.
- Possible side effects of licorice, such as hypertension, hypokalemia, dysrhythmia, should be considered.





THANKS!

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