**Triphala - Formulation of three fruits**

Triphala (three fruits formulation) also known as “triphala churna, is a traditional Ayurvedic herbal formulation consisting of three fruits native to the Indian subcontinent: Amalaki (*Embleica officinalis*), Bibhitaki, (*Terminalia belerica*) and Haritaki (*Terminalia chebula*) [1].

The combination of the three fruits has a synergistic effect to support digestive and many other systems as well.

**Traditional uses of Triphala:**

In Ayurveda practice, Triphala is used for gastric disorder such as in-digestion, poor food assimilation, cleansing of colon, constipation. It is also recommended to be used for Cardiovascular disorder, serum cholesterol reduction, ophthalmic infection, Liver dysfunction, Blood purifier [2].

**Amalaki [3]**

Botanical name - *Embleica officinalis*

Family – Euphorbiaceae

**Chemical Composition:**

Fruit is a well-known rich source of Vitamin C. Seeds contains fixed oil, phosphatides and an essential oil. Fruits, barks and leaves are rich in tannins.
**Therapeutic Uses:**

It is used in anemia, hyperacidity, peptic ulcer, dyspepsia, anorexia, diarrhoea, dysentery, hemorrhage, eye inflammations, irritability of bladder, leucorrhoea, spermatorrhoea, epitaxis, menorrhagia, jaundice, weak memory condition, oedema and liver condition.

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**Bibhitaki**[^4]

**Botanical name** - *Terminalia bellerica* Roxb.

**Family** - Combretaceae

**Chemical Composition**

Fruit contains 17% tannin and gallo-tannic acid (colouring matter) and resin. Seeds contain greenish yellow oil.

**Therapeutic Uses**

Fruits are laxative, astringent, anthelmintic and antipyretic useful in hepatitis, bronchitis, asthma, dyspepsia, piles, diarrhoea, coughs, hoarseness of voice, eye diseases and scorpion-sting; used as a hair tonic.

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**Haritaki**[^5]

**Latin name** - *Terminalia chebula* Linn.

**Family** - Combretaceae

**Chemical Composition**

Fruit contains tannin up to 30 % chebulic acid and gallic acid and some purgative constituents of Anthraquinone.
Therapeutic Uses

It is useful in asthma, sore throat, eye disease, heart and bladder diseases, strangury, urinary discharges, ascites, biliousness, inflammation, bleeding piles, typhoid, constipation, anaemia, elephantiasis and delirium. The ripe fruits are purgative, tonic, carminative and strengthens the brain, eyes and gums. The unripe fruit is astringent and useful in dysentery and diarrhoea.

Clinical Study of Triphala:

Pulok et al., evaluated the therapeutic efficacy of Triphala on constipation and observed the positive results on the same. No toxicity and adverse drug reaction were observed in patients [6].

Grades Available: 35%, 40% Tannins

Specifications:

<table>
<thead>
<tr>
<th>Botanical/ Scientific name</th>
<th>Emblica officinalis, Terminalia bellerica, Terminalia chebula Linn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Brown to brownish black hygroscopic powder with characteristic odor</td>
</tr>
<tr>
<td>Identification</td>
<td>Titrimetry</td>
</tr>
<tr>
<td>Heavy metal</td>
<td>Not more than 20 ppm</td>
</tr>
<tr>
<td>Arsenic</td>
<td>Not more than 1 ppm</td>
</tr>
<tr>
<td>Lead</td>
<td>Not more than 10 ppm</td>
</tr>
<tr>
<td>Content of Tannins</td>
<td>35, 40%</td>
</tr>
<tr>
<td>Microbiological profile</td>
<td>As per JPN Food Regulation</td>
</tr>
</tbody>
</table>

References:

6. Mukherjee PK et al., Clinical studies of triphala: A well known phytomedicine from India” Iran J Pharmacol Therapeut 2006;5:51-4.