



TO COMBAT  
RESPIRATORY TRACT INFECTIONS COMPLETELY  
INITIAL EMPIRIC TREATMENT  
SHOULD BEGIN WITH

**JUFEX<sup>®</sup> FORTE**

**— MUCH MORE THAN A COUGH SYRUP —**



FORTIFIED WITH UNIQUE HERBS TO PROVIDE SAFE AND NATURAL FORM OF TREATMENT

A NON-SEDATIVE, NON-NARCOTIC, COMPREHENSIVE & PALATABLE FORMULATION...

# JUFEX<sup>®</sup> FORTE

Cough Syrup

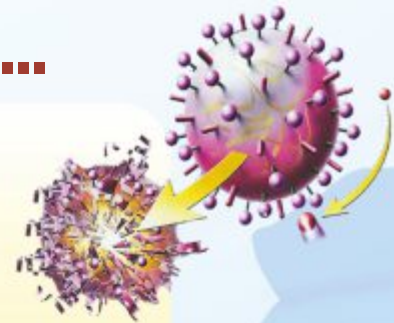


**A multi dimensional approach to combat respiratory tract infections**

**for tough cough management...**

## Combats Respiratory tract infections of viral origin

Reduces virus yield in the lung and enhances interferon production by Jufa, Mulethi, Lavang & Haritaki



## Relieves Laryngitis & Pharyngitis

Inhibits microbial growth and reduces inflammation by inhibiting leucocytes migration, lipo-oxygenase and cyclo-oxygenase by virtue of Tulsi, Gojiha and Kakrasinghi



## Enhances bioavailability in antibiotic resistant patients

Increases bioavailability of the drugs by promoting rapid absorption from Gastrointestinal tract or by protecting drug from metabolism / oxidation.



**special formula for all ages...**

## Helps fight Childhood & Chronic bronchitis

Relieves bronchospasm, improves ventilation in airways, liquifies the viscous mucus and boost body defense to fight against infections through vital herbs Jufa, Bansa & Kantkari.



## Soothes sore throat

Soothes inflamed mucosa and tonifies tracheal tree by soothing agents like honey, Pippement and Anjeer



## Relieves Smoker's Cough

Improves ciliary movements, facilitates the expulsion of thick and tenacious tracheobronchial secretions, thus relieves congestion associated with smoking.



**The right fight against deep rooted respiratory Infections...**

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## A Natural Anti-viral

- INHIBITS REPLICATION OF VIRUSES IN LUNGS
- ENHANCES PRODUCTION OF GAMMA INTERFERONS & IMMUNO GLOBULINS
- SIGNIFICANTLY CONTROLS PARA INFLUENZA VIRUS

### A Natural Anti-viral

Extracts of **Syzygium aromaticum (Lavang)**, **Terminalia chebula (Haritaki)** have been shown to have anti-herpes virus (HSV) activity in-vivo and in-vitro. They inhibited replication of human CMV. These anti-CMV activities in-vivo were examined in an MCMV infection model, using immunosuppressed mice. Mice were subcutaneously treated with various doses of cyclosporine, and immunosuppressions and MCMV infection were monitored by suppression of antibody production and virus yield respectively. The efficacy of herbs was evaluated by the reduction in the virus yield in the lung. **Syzygium aromaticum** and **Terminalia chebula** significantly suppressed MCMV yields in lungs of treated mice compared with water treatment. These herbs may be beneficial for the prophylaxis of CMV diseases in immunoc



### **HYSSOPUS OFFICINALIS (JUFA)**

An imported herb has been found useful and scientific studies establishes its role in bronchitis, respiratory tract infections, congestion, cough and viral infections which validate its aim to import.

(Antiviral Research 14 (1990) 323-337)



### Enhances Interferon



Glycyrrhizin, a major constituent of a plant **Glycyrrhiza glabra (Mulethi)**, for its efficacy on asthmatic features. The experimental subjects were orally treated with Glycyrrhizin to evaluate its protective or reversal effects. The status of airway hyperresponsiveness was measured by monitoring specific airway conductance (SGaw) using a non-invasive method and the pulmonary inflammation was assessed by haematoxylin and eosin staining of lung sections. Several other parameters associated with asthma such as interleukin, interferon-gamma, IgE, total IgG were measured markedly, it inhibited immediate airway constriction and infiltration of eosinophils in the peribronchial and perivascular areas. Our results demonstrate that Glycyrrhizin alleviates asthmatic features.

(Int. Immunopharmacol. 2006 sep; 6 (9): 1468-77)

**Pistacia integerima (Kakrasinghi)** was screened to evaluate its anti-viral activities against Para-influenza (RNA) and Herpes simplex (DNA) viruses. Kernel and seed extracts showed significant activities compared to the control group.

(Microbiological Research, 2005; 160 (2): 159-164)

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## Acts as Anti-infective & Anti-inflammatory

- HIGHLY BENEFICIAL IN LARYNGITIS & PHARYNGITIS
- INHIBITS INFLAMMATION AND INFECTION
- SHOWS WIDE SPECTRUM ANTI-INFECTIVE ACTIVITIES



### Prevents Lung Damage- Effectively

An aqueous extract of **Viola odorata (Gul banafsha)** was tested for anti-inflammatory properties as compared with hydrocortisone. Experimental subjects treated with extract before and after induction of lung injury by the administration of formalin via nebulization, were assessed microscopically for the area of hemorrhage, thickness of the alveolar wall, rupture of the alveolar septa, and alteration of the epithelial lining of the bronchioles. **V. odorata** extract given prophylactically was effective in preventing lung damage, equal to the effect of hydrocortisone and in aiding the resolution of formalin-induced lung damage. **V. odorata**, as an extract, could possibly be used as an alternative and safer medicinal agent than corticosteroids in the treatment of inflammatory conditions of the lungs.

(Journal of herbs, spices and medicinal plants 2002; 10 (2): 95-103)

**Pistacia integerima (Kakrasinghi)** is used in traditional medicine to treat coughs & asthma. The analgesic and anti-inflammatory activities of 6 tetracyclic triterpenoids, pistacigerrimones, isolated from the galls of **Pistacia integerima** were studied. Significant anti-inflammatory activities in the carrageenan-induced oedema test were seen by inhibition of the leucotriene synthesis.

(Fitoterapia- 1996; 67 (2): 103-105)

**Piper nigrum (Kali mirch)** finds an extensive application in anti-bacterial preparations with its fractions 2E, 4E, 8Z-N-isobutyleicosatrienamide, pellitorine, trachyone, pergumidiene and isopiperolein B. All the isolated compounds were active against **Bacillus subtilis**, **Bacillus sphaericus** and **Staphylococcus aureus** amongst Gram+ve bacteria and **Klebsiella aerogenes** and **Chromobacterium violaceum** among Gram-ve bacterial strains.

(Phytomedicine 2004 Nov; 11 (7-8): 697-700)

**Ocimum sanctum (Tulsi)** contains fixed oils comprising of palmitic, stearic, oleic, linoleic and linolenic acid, which inhibit enhancement of the vascular /capillary permeability and leucocyte migration following inflammatory stimulus in the lungs and also blocks both the pathways i.e. cyclo-oxygenase & lipoxygenase.

(Indian J. Exp. Biol. Vol. 37, Nov. 1999, 1139-1141)

(J. Ethno. 54, 1996, 19-26)



Boost body defense system to fight against infections...

Relieves chest congestion- improves ventilation in airways...

# JUFEX<sup>®</sup> FORTE

Cough Syrup



## Acts as Bronchodilator

- IMPROVES VENTILATION IN AIRWAYS
- RELIEVES CHILDHOOD & CHRONIC BRONCHITIS
- BRINGS PROGRESSIVE IMPROVEMENT IN VENTILATORY FUNCTIONS



Kantkari

## Relieves Bronchoconstriction

**Adhatoda vasica (Vasaka)** ext. Incorporated in Jufex forte, for the relief of cough & bronchitis can be attributed to the bronchodilatory effect & increase of ciliary movements by the alkaloid vasicine & potentiating of its bronchodilatory activity.

Besides the essential oil content of vasaka it has been reported to possess expectorant action, probably by improving ventilation in airways. All these activities in combination may facilitate the expulsion of thick & tenacious tracheo-bronchial secretions in chest affections. The two alkaloids Vasicine & Vscicinone in combination hold promise for their use as bronchodilating agent because of inhibitory effect of vasicine against 5 HT & histamine induced broncho-constrictor response.

(J. Ethnopharmacol 72 (2000) : 1-20 & Ind. J. Med. Res. 66, 4, Oct (1977) : 680-691)

## Improves ventilation in airways

The clinical efficacy of **Solanum xanthocarpum (Kantkari)** was investigated in mild to moderate bronchial Asthma. The respiratory functions were assessed by measuring the peak respiratory flow rate (PRFR) using a mini peak flow meter. In addition, improvement in lung function was assessed by physical examination and other symptoms such as cough, breathlessness and sputum. Solanum xanthocarpum produced a progressive improvement in the ventilatory function of asthmatic individuals. The scores for rhonchi, cough, breathlessness and sputum were decreased by these drug treatments. The improvement in PRFR and the reduction in other symptom scores clearly indicate a bronchodilator effect, a decrease of oedema and secretions in the airway lumen.

(Phytother Res. 2004 Oct : 18 (10) : 805-09)

### Dear Doctor

*Most respiratory tract infections are viral, only 30 % to 40 % infections are bacterial in nature, antibiotics have limited role to play in the treatment of respiratory tract infections of viral origin. A multi dimensional approach is required to combat respiratory tract infections completely.*

# JUFEX<sup>®</sup> FORTE

Cough Syrup



## Acts as Expectorant

- LIQUEFIES THE VISCOUS MUCUS
- FACILITATES EXPULSION OF THICK AND TENACIOUS MUCUS
- SOOTHES SORE THROAT



HONEY

## Enhances Bioavailability

Experiments were conducted to evaluate the scientific basis of the use of the trikatu group of acrids (**long pepper, black pepper and ginger**) in the large number of prescriptions in Ayurveda. Vasicine and Sparteine were taken as test drugs. Piper longum (long pepper) increased the blood levels of vasicine by nearly 233%. Under the influence of piperine, the active principle of Piper species, sparteine blood levels increased more than 100%. The results suggest that these acrids have the capacity to increase the bioavailability of certain drugs. It appears that the trikatu group of drugs increase bioavailability either by promoting rapid absorption from the gastrointestinal tract, or by protecting the drug from being metabolised/oxidised in its first passage through the liver after being absorbed, or by a combination of these two mechanisms.

(J Ethnopharmacol. 1981 Sep;4(2):229-32)



ANJEER

SOOTHES SORE THROAT  
•  
DILUTES VISCOUS MUCUS  
•  
ANTI-INFLAMMATORY

## Best Expectorant

A clinical trial to evaluate bronchodilator anti-tussive & Anti-asthmatic effect of **Terminalia bellerica (Vibhitak)** was conducted on 93 patients of different age groups ranging from 1 to 79 yrs. 61 cases from dyspnoea & 20 cases from mixed nature (Cough, Dyspnoea). Significant results were observed in all cases, 22 cases had complete relief, 27 cases showed significant relief & 35 cases showed symptomatic improvement & were moderately relieved. The observations & results reflected that Vibhitaka possesses bronchodilatory, anti-spasmodic, anti-phlegmatic, expectorant, antiasthmatic effects. (Database of Medicinal Plants)

The better and safer approach to treat tough cough...

Superior over conventional treatment...

# JUFEX<sup>®</sup> FORTE

MUCH MORE THAN A COUGH SYRUP



## EXCLUSIVE BENEFITS :

- **Enriched with Hyssops (Jufa)- Acts as potential Anti-viral.**
- **Non-sedative, Non-narcotic & Safe.**
- **A Natural bronchodilator & exerts mucolytic action.**
- **Anti-allergic & Immunomodulator.**

## INDICATIONS :

- **RESPIRATORY TRACT INFECTIONS OF VIRAL ORIGIN**
- **RECURRENT SORE THROAT**
- **SMOKER'S COUGH**
- **ALLERGIC COUGH**
- **COUGH ASSOCIATED WITH CHRONIC BRONCHITIS, PHARYNGITIS, LARYNGITIS, CHILDHOOD BRONCHITIS**

## DOSAGE :

### ADULTS :

2-3 TEASPOONFUL TDS  
WITH LUKEWARM WATER

### CHILDREN :

1-2 TEASPOONFUL TDS  
WITH LUKEWARM WATER  
or as directed by physician



THE RIGHT FIGHT AGAINST DEEP ROOTED RESPIRATORY INFECTIONS...