

## **Supporting Document of Nu Century Herbs For the Herbal Product Resprin**

### **Background in Traditional Chinese Medical Theory**

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The following background information serves to clarify the different nomenclature used in Eastern and Western Medical systems: Asthma (*qi chuan*) can develop from different Traditional Chinese Medical (TCM) patterns of diagnosis. Most often there is a deficiency of Lung and/ or Kidney Qi as well as an excess of pathological Phlegm/Damp, due to Spleen Qi deficiency, and/or Wind. Wheezing (*xiao chuan*), a key component or symptom of Asthma, develops from patterns of Spleen Qi Deficiency, Liver Qi Stagnation, Lung Qi and/or Yin Deficiency, and/or Kidney Deficiency. These deficiencies allow pathogens to invade either externally or internally generated: Wind-Cold, Wind-Cold-Phlegm, Wind-Cold with Internal Heat, Wind-Heat, Phlegm-Damp, or Phlegm-Heat. These are the same patterns that can evolve in a non-asthmatic, otherwise healthy individual that would impede breathing.

The *wei qi* is formed in the body from healthy Spleen and Lung systems, and is often equated to immunity from a Western Medical point of view. The Lungs are very susceptible to Wind, Dampness/Phlegm, Dryness, Heat and Cold. The Lungs open to the outside via the nasal passages/trachea. This pathway allows for external Wind to act as a vector for pathogens to be carried inside of the body. A healthy Lung system will defend the body from external Wind. The Spleen is very susceptible to Dampness/Phlegm and Cold. The Spleen is responsible for the transforming and transporting functions that occur within a body. The Spleen's ability to transform food and drink into usable nutrients can be impeded by the pathogens mentioned above. If this system is impeded, then the nutrients from food and drink are not available to make healthy blood; and thus the immune system is weakened. The deficiency of blood and the improper functioning of the Spleen allow Dampness/Phlegm to form. This internally derived Dampness rises up through the Triple Burner to the Lungs and blocks the healthy expression of Lung Qi. What should be a fine mist arising from the Lung becomes encumbered by Dampness/Phlegm, which blocks the orifices and impedes regular breathing. By tonifying the Spleen and Lung and removing pathogenic Wind/Damp/Phlegm/Heat/Dry/Cold, the *wei qi* is supported.

### **Goals of Resprin**

If the Spleen and/or Lung system is deficient this allows an invasion of an external pathogen that can impede breathing. By tonifying these systems in an otherwise healthy individual, invasions are avoided and easy breathing is maintained.

Herbal medicine ideally is used to prevent deficiencies from occurring so that pathogens do not invade the body or to clear pathogenic invasions from a body and then tonify the deficiencies to restore balance and health. In order to maintain health the yin and yang

need to be balanced, the Qi and Blood need to be regenerated and moved, and external and internal pathogens need to be voided. This formula, Resprin, serves the following functions, utilizing the herbs indicated, to maintain a healthy upper respiratory system:

Release the exterior to void external pathogens: Platycodon, Peppermint, Schizonepeta Herba, Forsythia

Tonify/ Benefit Spleen: Poria, Atractyloides Bai-zhu, Tangerine peel, Sichuan Fritillary, Massa Medicata Fermentata, Bitter Orange

Transform Phlegm/ Clear Dampness: Notopterygium, Siler, Poria, Sichuan Fritillary

Tonify/Benefit the Lung: Peucedanium

Harmonize the Blood: Bupleurum, Ligusticum

Move Liver Qi Stagnation: Peppermint, Bupleurum

Fortify Qi: Bupleurum, Atractyloides Bai-zhu, Chinese Licorice

Clear Internal Heat: Chinese Skullcap, Chinese Rhubarb

### **Hierarchy of Resprin Formula**

The Emperor, Platycodon (root), *Platycodon grandiflorum*, opens up and disseminates Lung Qi to release the exterior and to expel Phlegm. It combines with other herbs, as mentioned below, to address Wind-Heat or Wind-Cold. It is guided to the Lung and is bitter, acrid and neutral. The Deputies to the Chief of this formula are Peppermint (leaf), *Mentha haplocalyx*, Schizonepeta Herba (ariel parts), *Schizonepeta tenuifolia*, Poria (root), *Poria cocos*, and Ligusticum wallichii (rhizome), *Ligusticum chuanxiong*. The additional herbs in the formula serve as assistants.

#### Analysis of Deputies:

The First Deputy, Peppermint is acrid, aromatic and cooling to release Wind-Heat from the Lungs while moving Liver Qi Stagnation. As an assistant Bupleurum (root), aids Peppermint in spreading Liver Qi. It is bitter, acrid and cool, and enters the Liver channel. Bupleurum also works synergistically with Ligusticum wallichii to harmonize the blood, and with Bai-zhu Atractyloides to fortify the Qi. To relieve a stifling sensation in the chest to free up breathing difficulty Bupleurum works with Chinese Skullcap (root) for a *shao yang* disorder, with Notopterygium (rhizome) and Siler for dampness from Spleen Qi deficiency, with Bitter Orange for middle burner stagnation and with Peppermint for stifling due to Liver Blood deficiency leading to stagnation. It is important to move Liver Qi, as the Liver system is involved in free coursing. Free coursing must be established for free breathing, as those with Liver Qi stagnation tend to

hold their breath, which in turn impedes the movement of Qi. This stagnation of Liver Qi can invade the Lung and/or Spleen systems, thus creating further imbalance.

The second Deputy, Schizonepeta Herba (ariel parts), is acrid, aromatic and slightly warm. It functions to release the exterior and expel Wind-Cold or Wind-Heat when combined with other herbs. It works synergistically with Peppermint to disperse Wind in the head as well as with Notopterygium and Siler to release externally contracted Wind-Cold, and with Forsythia to release externally contracted Wind-Heat. In addition, it works synergistically with the Chief herb, Platycodon, and with Licorice to address cough due to externally contracted disorders.

The third Deputy, Poria, works in strengthening the Spleen and assists in digestion of existing Dampness/Phlegm, while also tonifying the Spleen to prevent further accumulation of Damp. It works synergistically with Tangerine peel to relieve fullness and distention of the chest, in order to facilitate breathing.

The fourth Deputy, Ligusticum wallichii (rhizome), is acrid and warm, enters the Liver, Gallbladder and Pericardium expel Wind and move Qi up towards the head. As a Blood mover it relieves stagnation of Qi and Blood in the chest in order to free-up breathing.

#### Analysis of Assistants:

The assistants in this formula are Bitter Orange, *Citrus aurantium*, Bupleurum, *Bupleurum chinense*, Peucedanium (root), *Peucedanum decursivum*, Ginger (rhizome), *Zingiber officinale*, Siler (root) (*Saposhnikovia divaricata*, Forsythia (fruit), *Forsythia suspense*, Asian Ginseng (root), *Panax ginseng*, Notopterygium (rhizome), *Notopterygium incisum*, Chinese Licorice, *Glycyrrhiza uralensis*, Pubescent Angelica, *Angelica pubescens*, Dong Quai (root), *Angelica sinensis*, Chinese Cucumber, *Trichosanthes kirilowii*, Atractylodis Bai-zhu, *Atractylodes macrocephala*, Sichuan Fritillary (bulb), *Pinellia ternate*, Chinese Skullcap, *Scutellaria baicalensis*, Chinese Rhubarb, *Radix et Rhizome Rhea*, Massa Medicata Fermentata, *Massa Fermentata* and Tangerine peel, *Citrus reticulata*.

Bitter orange (fruit) not only aids digestion of the herbs in this formula, but also works synergistically with Chinese Skullcap and Chinese Rhubarb to move obstructed qi and help clear Damp-Heat. It also works with Bai-zhu Atractylodis to stimulate the Spleen and transform Phlegm, the latter also being assisted by Sichuan Fritillary.

Peucedanium (root) is a bitter, acrid and slightly cold assistant herb, which enters the Lung and redirects rebellious qi down, while expelling Phlegm due to Heat in the lungs. It is a perfect herb for this formula as it also releases Wind from the exterior to address coughing and copious sputum. It works synergistically with Platycodon and Peppermint to relieve nasal congestion, which can obstruct breathing, and relieve cough due to external Wind-Heat. Peucedanium and Bupleurum (root) are a dui yao couplet which together dispel Wind and relieve stifling sensations in the chest, while Peucedanium

reestablishes normal flow of Lung Qi and Bupleurum reestablishes the normal flow of Liver Qi.

Ginger (rhizome) releases the exterior and warms the middle. This herb complements this formula by not only assisting to release the exterior, but also to aid digestion of this formula for people who are Spleen deficient. It works synergistically with Sichuan Fritillary to relieve a productive cough with Phlegm-Damp.

Siler (root) is acrid, sweet and slightly warm and enters the Bladder, Liver and Spleen channels to release the exterior and expel Wind, Wind-Cold and/or Wind Damp. Siler is commonly combined with Notoptergium to remove obstructions. It also combines with Pubescent Angelica, to release the exterior and disperse Wind-Cold-Dampness.

Forsythia (fruit) Expels Wind-Heat due to its slightly acrid and cool nature. It combines with Peppermint and Schizopeta to release Wind-Heat and free up breathing.

Asian Ginseng (root) tonifies the Lung and Spleen to boost Qi to rectify wheezing, labored breathing, and shortness of breath. It works with Poria and Atractylodis to tonify Spleen and Stomach to prevent formation of Damp/Phlegm.

Notoptergium, in addition to assisting Bupleurum and Siler relieve stifling sensation in chest, works as a *dui yao* for upper and lower body relief for Wind-Dampness.

Chinese Licorice tonifies the Spleen and augments the Qi, and is commonly used for Spleen deficiency with shortness of breath, as it also moistens the Lungs to enrich the mucosa to prevent pathogenic invasions. It can also serve to harmonize multiple functions in this formula, and act as a guide to the channels.

Sichuan Fritillary (bulb) is acrid, warm and toxic (if untreated) and enters the Lung, Spleen and Stomach. It serves to dry dampness, transform phlegm and descend rebellious qi (cough/wheeze). It is very effective in transforming Phlegm-Cold in the Lung and Phlegm due to dampness of the Spleen. It works synergistically with Tangerine peel for productive cough and a stifling sensation in the chest, with Chinese Skullcap (root) for Phlegm-Heat causing rebellious qi creating cough/wheeze.

Pubescent Angelica (root) disperses Wind-Cold-Damp, and is commonly used with Notopterygium to guide it to the head.

Dong Quai (root) benefits the Blood of the Liver and Spleen to maintain a healthy organ system and prevent future pathogenic influences due to a deficiency of Blood.

Chinese Cucumber clears and drains Lung Heat, transforms Phlegm and moistens Lung Dryness. It assists the Chief herb in resolving cough due to Phlegm Heat in the Lungs. In addition to assisting Bupleurum, Atractylodis Bai-zhu stabilizes the exterior so that Wind cannot enter. It works synergistically with Ginger, Bitter Orange, Poria, Chinese

Skullcap and Tangerine peel to regulate the middle, aid the digestion of Phlegm/Dampness, and to prevent Phlegm/Dampness from forming.

In addition to assisting Sichuan Fritillary, Chinese Skullcap clears Heat and drains Fire from the upper burner. It works with Bai-zhu Atractylodis and Dong Quai to cool blood heat.

Chinese Rhubarb assists Dong Quai with relieving blood stasis and with Chinese Skullcap in draining Heat.

Massa Medicata Fermentata, *Massa Fermentata*, with Ginger, Bitter Orange and Tangerine peel assists with digestion of this formula, and protects the Stomach and Spleen from the bitter and cold properties of herbs in this formula.

Tangerine Peel also works with Poria and Bai-zhu Atractylodis to clear Damp/Phlegm.

### **Conclusion**

Based on the analysis above, and in my professional opinion, I believe that there is sufficient support from a TCM perspective to support the use of Resprin as a formula to assist people with breathing difficulties. This formula serves to benefit people with breathing difficulty due to Lung/Spleen deficiency with pathogenic excess of Phlegm/Dampness and/or Heat. As this is a very common pattern amongst our modern population, this formula would also serve to alleviate breathing difficulties for people susceptible to these patterns. Resprin can also be used as a preventative for invasions of Wind-Damp-Heat as would happen during the summer and/or wintertime with artificially heated air.

### **References**

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