

GENERAL TONIC FORMULA *SHI QUAN DA BU WAN*

ORIGINS: *TAI PING MEN HE*
Ji Ju Fang 11th Century CE

General Tonic Formula (*Shi Quan Da Bu Wan*), is also known as “All-inclusive Great Tonifying Decoction” and “Ginseng and Tang Kuei Ten Formula.” First published toward the end of the 11th Century C.E. in the *Tai Ping Imperial Grace Formulary* (*Tai Ping Men He Ji Ju Fang*), this formula is commonly seen as a combination of Four Substance Decoction (*Si Wu Tang*) and Four Gentlemen Decoction (*Si Jun Zi Tang*), with the addition of astragalus (*huang qi*) and cinnamon bark (*rou gui*). However, both of these formulas were not published until a few decades later, and the formula that is most often associated with the combination of these two four-ingredient formulas, namely, Eight Treasure Decoction (*Ba Zhen Tang*), was not published for more than a hundred years after **General Tonic Formula**. **General Tonic Formula** (*Shi Quan Da Bu Wan*) can therefore be seen as the mother of these other formulas, rather than the product of their combination.

GENERAL SIGNS/SYMPTOMS

General Tonic Formula (*Shi Quan Da Bu Wan*), as its name suggests, is an extremely versatile tonic, but is especially appropriate for post-surgical replenishing of qi, blood, and yang, and for those who have had long-term chronic illness with marked deficiency. Indications include: fatigue, reduced appetite, weak digestive function, pale complexion, dyspnea, chronic, weak cough, dizziness from blood deficiency, cold hands and feet, aversion to cold, seminal fluid loss, weakness and cold of the back and lower extremities. Other symptoms may include; slow healing sores and ulcerations, dry skin due to blood vacuity, mid-cycle spotting, irregular menstruation, tendency to bruising or bleeding, generalized weakness, and slow recovery from injury, surgery, or illness. This formula is also used when sweating occurs on only one half of the body—a sign that the regulation of *wei qi* has been damaged from qi and blood loss.

CLASSICAL APPLICATIONS

1. Supplements

middle warmer qi
and benefits *wei qi*

- Fatigue
- Weak digestion
- Reduced appetite
- Sweating on one half of the body
- Dyspnea

2. Nourishes and regulates blood

- Fatigue
- Dry skin
- Mid-cycle spotting
- Irregular menstruation
- Pale complexion
- Bruising or bleeding

3. Warms and tonifies yang

- Cold hands and feet
- Aversion to cold
- Weakness and cold of back and lower extremities

4. Dries and transforms dampness and phlegm from deficiency

- Jaundice

INGREDIENTS

PINYIN	LATIN	ENGLISH	PERCENT OF FORMULA
<i>Dang Shen</i>	<i>Codonopsis (radix)</i>	Codonopsis	13.6%
<i>Shu Di Huang</i>	<i>Rehmanniae (radix, preparata)</i>	Cured Rehmannia Root	13.6%
<i>Bai Shao</i>	<i>Paeonia (radix, alba)</i>	Chinese White Peony	11.4%
<i>Dang Gui</i>	<i>Angelicae Sinensis (radix)</i>	<i>Dong Quai, Tang Kuei</i>	11.4%
<i>Fu Ling</i>	<i>Poria</i>	Poria, Hoelen, Tuckahoe	11.4%
<i>Bai Zhu</i>	<i>Atractylodis Macrocephalae (rhizoma)</i>	White Atractylodes Rhizome	9.1%
<i>Huang Qi</i>	<i>Astragali (radix)</i>	Astragalus	6.8%
<i>Hong Zao, Da Zao</i>	<i>Jujubae (fructus)</i>	Jujube Fruit, Chinese Red Date	6.8%
<i>Chuan Xiong</i>	<i>Chuanxiong (rhizoma)</i>	Ligusticum Wallichii Rhizome	4.5%
<i>Gan Cao</i>	<i>Glycyrrhizae (radix)</i>	Chinese Licorice Root	4.5%
<i>Rou Gui</i>	<i>Cinnamomi (cortex)</i>	Cassia Bark, Cinnamon Bark	4.5%
<i>Gan Jiang</i>	<i>Zingiberis (rhizoma)</i>	Dried Ginger	2.4%

FORMULA ACTIONS

- Supplements middle warmer qi and benefits *wei* qi
- Nourishes and regulates blood
- Warms and tonifies yang
- Dries and transforms dampness and phlegm from deficiency

TONGUE

Pale with thin coat.

PULSE

Thin and weak.

CONTRAINDICATIONS / CAUTIONS

This formula is tonifying and warming and may not be appropriate when excess signs and symptoms prevail. Use with caution when there is thick tongue coating or signs of deficient heat.

DOSAGE

Standard dosage for an average-sized adult is 2 tablets, 3 times daily.

GENERAL INDICATIONS / MODERN APPLICATIONS

General Tonic Formula can be used to treat the following conditions when the underlying pattern is qi and blood deficiency with cold:

- Abdominal masses
- Anemia, hemolytic or pre-operative
- Appetite, reduced or loss of (anorexia)
- Athero-thrombotic disease
- Autoimmune disorder, immunomodulation in
- Back weakness
- Bone density, poor
- Cancer, adjunctive therapy
- Candida albicans, proliferation of
- Chemotherapy, side effects of
- Cirrhosis, chronic biliary
- Cold hands and feet
- Complexion, pale
- Cough, consumptive or chronic and deficient
- Depression
- Digestion, poor
- Dizziness and vertigo
- Dry skin due to blood vacuity
- Fatigue
- Hepatitis, chronic
- Hernia, inguinal
- Jaundice, lusterless, yellow
- Legs, weak
- Mouth ulcers
- Post-partum weakness
- Seminal leakage
- Shortness of breath
- Sores, chronic, non-healing
- Surgery, debility after
- Sweating on only one half of the body
- Tinnitus and deafness
- Tremors
- Ulcers, non-healing
- Uterine flooding and spotting
- Weakness, generalized, or after surgery or long illness
- Wheezing
- Wounds, slow healing

FORMULA DISCUSSION

The custom of the era from which **General Tonic Formula** emerged was to name formulas after the ingredients that characterized their actions, but occasionally a formula was selected to stand out by assigning it a special name. *Shi Quan Da Bu Wan* is usually translated as “All-inclusive Great Tonifying Decoction”. The name suggests the formula’s great versatility as a tonic. The general strategy of its “all-inclusive” tonifying action is to restore to the body the ability to optimally maintain itself by nourishing the qi and blood of the organs.

The way this formula accomplishes its generalized tonification can be difficult to grasp. The strategy is often over-simplified by stating that it “tonifies qi and blood and warms the yang.” As a guiding overview, this description works just fine, but insight into how these three things are accomplished may help the physician to prescribe the formula in more conditions and with better results.

A pattern where there is true qi and blood deficiency with cold signs occurs when the qi has been damaged from long-term, consumptive, or severe illness. The same pattern can also arise post-trauma or post-surgery. Since the qi and blood are interdependent, if the spleen qi is especially weak, it cannot produce sufficient blood. Likewise,

since blood bears the qi, when there is blood loss, as from surgery or trauma, qi is also lost, sometimes to the point of not being able to recover by itself. When qi and blood are insufficient, the body, having lost its ability to restore these humors, cannot sufficiently move them either. This leads to stagnation. This stagnation is an apparent excess, but only arises from the deficient condition wherein the qi cannot sufficiently accomplish all of its movements or functions. Over time, these apparent excesses can become true excesses and must be addressed as such before the underlying deficient condition can be addressed. But if the underlying deficiency is not corrected, the patient can develop echo patterns, where the same apparent (or actual) excesses keep recurring without hope of complete resolution.

It can be clinically important to understand that **General Tonic Formula** (*Shi Quan Da Bu Wan*) does not so much replenish qi, blood, and yang, as it restores the body's ability to produce and regulate these itself. Just how this formula accomplishes that can be understood by analyzing the constituent parts.

SYNERGY OF CONSTITUENT PARTS

Rather than expand upon each ingredient separately, a presentation of this formula can be condensed to a discussion of the two constituent formulas, plus four additional ingredients. The two component formulas, Four Gentlemen Decoction (*Si Jun Zi Tang*) and Four Substance Decoction (*Si Wu Tang*), are usually considered as co-chiefs of the formula. Two of the ingredients, cinnamon bark (*rou gui*) and astragalus (*huang qi*) are listed in the source text as part of the "Ginseng and Tangkuei Ten Combination" (an alternate name for this formula). But in the preparation directions, the source text instructs the physician to add jujube date (*da zao*) and some fresh ginger (*sheng jiang*). Both jujube date and ginger have been re-introduced in the version of the formula under discussion, though the fresh ginger (*sheng jiang*) has been replaced by dried ginger (*gan jiang*) for reasons that will be made clear below.

Four Gentlemen Decoction (*Si Jun Zi Tang*) is viewed by many to be a modification of Regulate the Middle Pill (*Li Zhong Wan*). The difference between the two formulas is that where Regulate the Middle Pill (*Li Zhong Wan*) uses dried ginger (*gan jiang*), Four Gentlemen Decoction (*Si Jun Zi Tang*) uses

poria (*fu ling*). The substitution shifts the action of the formula from that of dispelling cold from a deficient middle warmer to a focused supplementation of the spleen qi. Regulate the Middle Pill (*Li Zhong Wan*) is usually prescribed only for short courses of treatment (a few days to a few weeks), since it can easily damage the yin. Four Gentlemen Decoction (*Si Jun Zi Tang*) is more balanced and even has a mild action to open the qi dynamic, so it is safer for long-term use. It disinhibits the spleen from damp encumbrance and supports its function as the source of post-natal qi. Though part of its action is to dry dampness that inhibits spleen function, it is not as aggressively drying as Regulate the Middle Pill (*Li Zhong Wan*), and some of the drying actions are compensated for by the inclusion of licorice root (*gan cao*), which moistens, and codonopsis (*dang shen*), which generates body fluids. In the version of **General Tonic Formula** (*Shi Quan Da Bu Wan*) under discussion here, the specific formulation used consists of codonopsis (*dang shen*), atractylodes (*bai zhu*), poria (*fu ling*), and licorice root (*gan cao*). Because it is simple, harmoniously balanced, and reliably effective, Four Gentlemen Decoction (*Si Jun Zi Tang*) is the most commonly used base formula among all the formulas that supplement the qi.

Four Substance Decoction (*Si Wu Tang*) consists of prepared rehmannia (*shu di huang*), white peony root (*bai shao*), angelica root (*dang gui*), and ligusticum rhizome (*chuan xiong*). It is often said that the function of Four Substance Decoction (*Si Wu Tang*) is to supplement blood and regulate its flow. But perhaps a more accurate description is that this formula nourishes and rectifies the yin aspect of the zang organs, restoring their ability to generate and regulate blood on their own. The regulatory action of Four Substance Decoction (*Si Wu Tang*) is half of the formula. Two of the "four substances," ligusticum rhizome (*chuan xiong*) and angelica root (*dang gui*), are responsible for regulating "the qi in the blood". Their inclusion not only prevents the formation of stasis that can result from the cloying nature of the other two herbs in the formula, but by activating the qi in the blood they spread the nourishing action throughout the vessels and collaterals. Because this formula addresses blood deficiency issues at their origin, it follows that it is also effective to eliminate internal wind that arises

in the blood. It is easy to see how, when combined with Four Substance Decoction (*Si Wu Tang*), the two together support both the yin and yang aspects of the body. In the actions of this formula, the yin-yang relationship is symbolized in the pairing of blood and qi.

The classical formulation of **General Tonic Formula** (*Shi Quan Da Bu Wan*) adds astragalus (*huang qi*) and cinnamon bark (*rou gui*) to the two constituent formulas above. When surgery, injury, or prolonged illness has damaged the qi and blood, a loss of yang is a common development. The loss of yang, or its diminished presence in the body, can lead to a myriad of issues. From simple feelings of cold, to hypo-functioning organs, to all sorts of stagnation resulting from an inability to keep the vital humors invigorated, yang deficiency can be at the root of many of the body's issues and must be addressed. The ability of cinnamon bark (*rou gui*) to warm the interior is an essential component of this formula's strategy. Its sweetness tonifies; and therefore restores function while it warms. When it is combined with Four Substance Decoction (*Si Wu Tang*) it enters the blood, warming and unblocking the blood and vessels. When it combines with Four Gentlemen Decoction (*Si Jun Zi Tang*), cinnamon bark (*rou gui*) supplements the yang (warming) aspect of the qi to revive the flagging *zang*. It warms the heart and frees the blood in the vessels; it warms the kidneys and can restore feral yang to the heart, liver, spleen, or kidney.

Astragalus (*huang qi*) is added mainly to raise the yang through the qi aspect, thus tying together the warming and qi-augmenting actions. Highly yang in nature, astragalus (*huang qi*) draws qi upward and outward toward the surface to fortify the exterior. It supports the lung's function to govern the qi, and thereby facilitates, like several other herbs in this formula, the distribution of qi and blood. Astragalus (*huang qi*) is also commonly used with herbs from the "blood tonic" category to support the spleen's ability to produce new blood. Therefore, astragalus (*huang qi*), is used in **General Tonic Formula** (*Shi Quan Da Bu Wan*) not only to tie together the qi and yang support, but also the blood and regulatory aspects of the formula.

The specific formulation under discussion here adds to the classical *Shi Quan Da Bu Wan* jujube date (*da zao*) and a small amount of dried ginger (*gan jiang*). Jujube (*da zao*) is usually classified as a qi tonic, but since it also has an action to nourish the blood, it is especially appropriate in a formula designed to support both these actions. Additionally, jujube date (*da zao*) has an action to harmonize the constituent parts of the formula into something the body will process as a unified whole.

A little (2.4%) dried ginger (*gan jiang*) is re-introduced from the original Regulate the Middle Pill (*Li Zhong Wan*) to gently warm the interior and assist in drying dampness to free the spleen. When combined with cinnamon bark (*rou gui*), the interior-warming action in all three *jiao* (warmers/burners) is enhanced; and when it is added to Four Gentlemen Decoction (*Si Jun Zi Tang*), dried ginger (*gan jiang*) actively dispels cold and warms the qi. So cinnamon bark (*rou gui*) warms and frees the blood, while dried ginger (*gan jiang*) dries dampness and warms the qi. The combined action of these two herbs warms the lung and heart, reinforcing the *zong* (ancestral or pectoral) qi, thereby warming the channels and expanding the application of the formula to reach both interior and exterior.

MODERN APPLICATIONS

Circulatory

Anemia and pre-operative anemia: The use of **General Tonic Formula** (*Shi Quan Da Bu Wan*) was shown to be successful in treating anemia during pre-operative autologous blood donation.ⁱ Eighteen females who were scheduled to undergo hip replacement surgery were included in this study. Nine in a control group received no herbal supplementation, and nine who received 7.5g daily of **General Tonic Formula** (*Shi Quan Da Bu Wan*) for 21 days prior to the surgery, ending the day before surgery. Pre-operative autologous blood donation was performed on all 18 participants, 21, 14 and 7 days prior to surgery. Hemoglobin levels were recorded for all participants on pre-operative days, 21, 14, and 7 and post-operative days, 1, 4, 7, and 14.

There were significant differences in the hemoglobin levels between the two groups. The group receiving **General Tonic Formula** (*Shi Quan Da Bu Wan*)

showed significantly less decline in hemoglobin levels in the pre-operative and post-operative testing, despite the consistent blood loss throughout this period. No patients who received **General Tonic Formula** (*Shi Quan Da Bu Wan*) experienced any negative side effects, exhibiting no gastrointestinal symptoms or unusual lab results.

Anemia as a result of interferon and ribavirin therapy: Hemolytic anemia induced by interferon and ribavirin (IFN/Rib) therapy for chronic hepatitis C is a serious side effect of this treatment, often necessitating the reduction or discontinuation of ribavirin. **General Tonic Formula** (*Shi Quan Da Bu Wan*) has been shown in a clinical trial to significantly diminish the need to reduce or discontinue the treatment due to the development of severe anemia. This combined herbal-pharmaceutical therapy contributes to the overall success rate of IFN/Rib therapy in treating hepatitis C. The results of this study indicate that **General Tonic Formula** (*Shi Quan Da Bu Wan*) stimulates bone marrow cells, resulting in the alleviation of anemia induced by IFN/Rib therapy.ⁱⁱ

Athero-thrombotic disease: A combined *in vitro* and animal study in Japan has shown that **General Tonic Formula** (*Shi Quan Da Bu Wan*) can achieve inhibition of arterial thrombogenesis based on its anti-platelet activity and stimulation of the vascular endothelium.ⁱⁱⁱ

Immunity

Candida albicans: **General Tonic Formula** (*Shi Quan Da Bu Wan*) has been shown to augment host-mediated anti-fungal actions in *Candida albicans*-infected mice by increasing macrophage activity. Macrophage activity is known to be inhibited by *C. albicans* infection, and **General Tonic Formula** (*Shi Quan Da Bu Wan*) can normalize macrophage activity in mild to moderate *C. albicans* infection.^{iv}

Immunomodulation in autoimmune disorders—*In vitro* and *in vivo* studies have shown that **General Tonic Formula** (*Shi Quan Da Bu Wan*) can up-regulate cytokines, specifically IL-18 and IL-12 and activate natural killer T cells. (NKT cells).^v

Cancer Treatment

Side-effects from chemotherapy: *Juzen-taiho-to* (**General Tonic Formula** / *Shi Quan Da Bu Wan*),

when tested alongside 11 Japanese Kampo formulas, was shown to be the most effective in reducing the side effect of nephrotoxicity induced by CDDP (Cisplatin).^{vi} This chemotherapy drug is used to treat testicular, ovarian, bladder, head and neck, esophageal, small and non-small cell lung, breast, cervical, stomach and prostate cancers. It is also used to treat Hodgkin's and non-Hodgkin's lymphomas, neuroblastomas, sarcomas, multiple myeloma, melanoma, and mesothelioma.^{vii} The administration of *Juzen-taiho-to* was shown to protect the bone marrow and stabilize the blood cell count.

Adjuvant cancer therapy: **General Tonic Formula** (*Shi Quan Da Bu Wan*), has been successfully used to restore hematopoietic function in patients who had previously undergone chemotherapy and radiation treatments that resulted in leukopenia. A study including 134 patients with cancer who had suffered this side effect of chemotherapy and radiation treatments were given **General Tonic Formula** (*Shi Quan Da Bu Wan*). As a result of administration of this formula, 113 of the 134 patients brought their white blood cell count to normal levels.^{viii}

A three year study conducted on 130 patients with advanced breast cancer in Japan during the period 1985-1987, indicated an increased survival rate for patients who were treated with **General Tonic Formula** (*Shi Quan Da Bu Wan*) following the appropriate chemotherapy and radiation treatment for each case. The difference in the survival rates between the group receiving the formula and the control group was noted 18 months into the treatment, following the chemotherapy and radiation therapy. Until that time the survival rates were equal for each group. The improvement in survival rates of the group treated with herbs continued throughout the three years of monitoring.^{ix}

In vivo studies have shown that **General Tonic Formula** (*Shi Quan Da Bu Wan*) is useful in the prevention of malignant progression and metastasis of tumor cells when used in combination with other treatment modalities such as surgery, radiation and chemotherapy. **General Tonic Formula** (*Shi Quan Da Bu Wan*) was found to enhance phagocytosis, up-regulation of cytokines and NK cells (natural killer cells), and antibody production.^x

Bone Mass Density

Japanese studies have shown that **General Tonic Formula** (*Shi Quan Da Bu Wan*; Kampo: *Juzen-taiho-to*) is as effective as 17 β estradiol in preventing the development of bone loss induced by ovariectomy in rats.^{xi}

Jaundice

Jaundice is usually thought of as an excess condition, but it can arise from a chronic or constitutional weakness of spleen qi.^{xii} In such cases, the spleen loses its ability to produce blood and transform dampness.

This same condition can result from over-use of bitter cold herbs. Over time, the deficiency of liver blood and the general weakness in the transformation function of the spleen can lead to a stagnation of dampness around the liver/gallbladder, resulting in sallow skin-type jaundice. When this is the pattern, **General Tonic Formula** (*Shi Quan Da Bu Wan*) can restore function and eliminate the jaundice.

FORMULA COMPARISONS

General Tonic Formula and Ginseng & Longan Formula

Both formulas supplement qi and blood, spleen and heart qi. **Ginseng & Longan Formula** (*Gui Pi Tang*) is a good alternative if there are no signs of yang deficiency and the patient finds **General Tonic Formula** (*Shi Quan Da Bu Wan*) difficult to digest due to the presence of rehmannia (*shu di huang*). **Ginseng & Longan Formula** (*Gui Pi Tang*) has a more pronounced affect on the heart qi and *shen* (spirit). **General Tonic Formula** (*Shi Quan Da Bu Wan*) is used for those with qi and blood deficiency accompanied by symptoms of cold.

General Tonic Formula and Astragalus & Ligustrum Formula

Both of these formulas supplement qi and blood. **Astragalus & Ligustrum Formula** (*Huang Qi Dong Qing Pian*) harmonizes spleen and stomach and supports *wei* qi, but it also supplements the kidney yin. **General Tonic Formula** (*Shi Quan Da Bu Wan*) is more appropriate when yang qi is the issue, not yin.

General Tonic Formula and Ginseng Nourishing Formula

Although both formulas build upon Eight Treasures Decoction (*Ba Zhen Tang*), so therefore both supplement qi and blood, **Ginseng Nourishing Formula** (*Ren Shen Yang Ying Wan*) is stronger to nourish heart qi and calm the *shen*/spirit and improve memory. This formula is often used with the elderly and those recovering from long-term chronic illness.

General Tonic Formula (*Shi Quan Da Bu Wan*) has some support for yang qi and is a more warming formula used for those with a predominantly cold presentation.

General Tonic Formula and Ji Xue Formula

Though both formulas act to support qi and blood, **Ji Xue Formula** (*Huang Qi Ji Xue Wan*) also invigorates blood, drains damp, promotes digestion, and clears heat toxin. This formula primarily acts on the spleen and kidney channels. **Ji Xue Formula** (*Huang Qi Ji Xue Wan*) has the ability to nourish these while clearing the excess symptoms of damp and heat toxin. **General Tonic Formula** (*Shi Quan Da Bu Wan*) is used in cases that are clearly due to deficiency of qi and blood with cold symptoms.

General Tonic Formula and Peaceful Spirit Formula

Although both formulas supplement qi and blood, **Peaceful Spirit Formula** (*Yang Xin Ning Shen Wan*) is directed to nourishing the heart qi to calm *shen*.

General Tonic Formula and Six Gentlemen Formula

General Tonic Formula (*Shi Quan Da Bu Wan*) nourishes qi and blood and warms yang qi. **Six Gentlemen Formula** (*Liu Jun Zi Tang*) nourishes spleen qi in order to support the production of blood. The other aspect of **Six Gentlemen Formula** (*Liu Jun Zi Tang*) is transformation of phlegm dampness.

General Tonic Formula and Women's Precious Formula

Both these formulas build on Eight Treasures Decoction (*Ba Zhen Tang*) as their base formula. **Women's Precious Formula** (*Ba Zhen Tang*) is specifically formulated to restore a normal menses when the pattern is qi and blood deficiency, whereas, true to its name, the other formula is a "General Tonic" with some yang deficiency present; it has a broader application.

USEFUL COMBINATIONS

General Tonic Formula (*Shi Quan Da Bu Wan*) lends itself easily to combination with other formulas. It can be used as the base formula and then augmented to accomplish specific therapeutic goals.

When dampness is prevalent in a qi and blood deficiency pattern	Use with Poria Five Formula .
Spleen and kidney yang deficiency	Use with Sea of Qi Formula .
Yin deficiency with kidney yang deficiency	Combine with Essential Yang Formula .
If yang qi deficiency is a minor concern, and spleen qi deficiency is significant	Use with Six Gentlemen Formula .
If there is a qi, blood, and yang deficiency pattern and a chronic cough and/or wheezing from kidney and lung yin deficiency	Use with Eight Immortals Formula
If blood deficiency and stagnation are greater than the qi deficiency	Use with Tang Kuei & Salvia Formula .

Endnotes

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