INTRODUCTION:

During the last twenty plus years in which Dr. Jimmy Chang has been teaching, he has taught us that a proper assessment of patients’ blood pressure and heart rate can prove to be a much more reliable diagnostic measure than the patients’ subjective complaints. Dr. Chang has made the distinction of four different blood pressure and heart rate types. These types lead to an objective Eight Principle pattern differentiation, often independently of the patients’ symptoms. Such an accurate diagnosis, which often stands in stark contrast to the patient’s symptoms, can guide the practitioner to prescribe very effective formulas.

In 2018, based on a new study on blood pressure done in Taiwan, Dr. Chang discovered further systolic and diastolic blood pressure types with corresponding effective herbal prescriptions. We present here a summary of all
of these patterns in order to assist practitioners to use this information correctly for diagnosis and sound treatment protocols.

GENERAL CONSIDERATIONS:

SYSTOLIC PRESSURE:

A normal systolic pressure should be no higher than 160 mmHg, and no lower than 110 mmHg.

*Systolic pressure is directly correlated with blood pressure in the head.* High systolic pressure is an indication of an overactive sympathetic nervous system which indicates that the patient is under too much stress. Other common reasons are decreased kidney function or neck and shoulder congestion.

DIASTOLIC PRESSURE:

*Diastolic* pressure should be in the range of 70 to 95 mmHg. Diastolic blood pressure is the pressure found in the vessels in between heartbeats, and correlates directly with the pressure found in the heart.

HEART RATE:

A normal *heart rate* is between 60 - 80 beats per minute (bpm). Heart rate is most significant when it’s above 110 where you should suspect infection and pus should the patient also displays fever in your clinic.

DIAGNOSING AND TREATING BLOOD PRESSURE TYPES:

Type 1: High blood pressure, fast heart rate:
**Description:**
This type of patient presents with a systolic blood pressure above 140 mmHg, a diastolic blood pressure above 90 mmHg, and a rapid heart beat (above 85 bpm). No matter what the patient’s complaints are, even if they appear as paradoxical (for example the patient may complain of weakness, dizziness, and other deficiency signs), the objective finding based on this blood pressure type is one of excess heat.

**Measurements:**
Systolic > 140 mmHg  
Diastolic > 90 mmHg  
HR: > 85 bpm

**Possible symptoms:**
Any symptoms associated with excess heat, but may include paradoxical symptoms, such as weakness, dizziness and deficiency symptoms.

**Pulse Quality:**
Expanding, forceful, thick, convex, big

**Eight Principle Differentiation:**
Excess Heat

**Treatment Principle:**
Clear Excess Heat via acupuncture, blood letting and/or heat purging herbs.

**Possible Formulas:**
*Bai Hu Tang* (White Tiger Decoction)  
*Long Dan Xie Gan Tang* (Gentiana Decoction to Drain the Liver)

Dr. Chang likes to use **Gardenia Complex** (Evergreen Herbs) as it consists of the above listed formulas plus *Zhi Bai Di Huang Wan* (Anemarrhena, Phellodendron and Rheamennia Pill). He prefers to combine all three formulas, using the metaphor that it is faster to ventilate a car by opening all the windows at once instead of one at a time. This concept applies here in that the three formulas used together clear heat from all Three Jiaoos simultaneously.
Contraindications:
Tonic formulas are contraindicated and put patients with this blood pressure presentation at risk.

Type 2: Low blood pressure, slow heart rate:

Measurements:
Systolic < 95 mmHg
Diastolic < 60 mmHg
HR: < or = 60 bpm

Possible symptoms:
Any signs of deficiency

Pulse Quality:
Small
Eight Principle Differentiation:
Deficiency
Treatment Principle:
Tonification via tonifying formulas.

Possible Formulas:
Bu Zhong Yi Qi Tang (Tonify the Middle and Augment the Qi Decoction)
Shi Quan Da Bu Tang (All Inclusive Great Tonifying Decoction)

Contraindications:
Avoid using too many heat clearing herbs. Should some heat be present, be sure that the majority of your prescription is tonifying. Acupuncture is contraindicated.
Low systolic blood pressure (< 110 or 90 mmHg) indicates that the body is deficient and needs tonification. In this case dietary advice should include eating a more hearty diet including beef, which is high in zinc, in order to build more protein. Ideally beef should be included in every meal. Exercise in this case should be mild.
Type 3: High systolic blood pressure, slow heart rate:

**Description:**
In this case the systolic blood pressure is above 140 mmHg, diastolic blood pressure is usually normal (around 80 mmHg) and the heart rate is lower than or equal to 65 bpm. This reading would be indicative of someone who does **not** require blood pressure medication.

**Measurements:**
- Systolic > 140 mmHg
- Diastolic normal (around 80 mmHg)
- HR: < or = to 65 bpm

**Possible symptoms:**
- Dark lips, tongue, gums and elbows, brownish spots on the ears

**Pulse Quality:**
- Stagnant, sluggish, low amplitude

**Diagnosis:**
- Blood Stasis

**Treatment Principle:**
- Move Blood

**Possible Formulas:**
- *Xue Fu Zhu Yu Tang* (Drive Out Stasis in the Mansion of Blood)
- *Ge Xia Zhu Yu Tang* (Drive Out Blood Stasis Below the Diaphragm Decoction)
- *Shao Fu Zhu Yu Tang* (Drive Out Blood Stasis in the Lower Abdomen Decoction)
- *She Chong Yin* (Break the Conflict Decoction)
- *Zheng Gu Zi Jin Dan* (Purple and Gold Pill for Righteous Bones)

**Contraindications:**
- Use less tonics to avoid more stagnation in the body.
Type 4: Low Blood Pressure, Fast Heart Rate

Description:
Here the systolic blood pressure is below 90 mmHg, diastolic blood pressure is usually below 60 mmHg and the heart rate is over 80 or 100 bpm. These patients are usually chronically ill and have exhausted themselves physically and emotionally over prolonged periods. Hospitalized patients often present with this blood pressure type.

Measurements:
Systolic < 90 mmHg
Diastolic < 60 mmHg
HR: > 80 bpm

Possible Signs and Symptoms:
Physical and mental exhaustion

Pulse Quality:
Rapid

Diagnosis:
Deficiency, heat - Yin deficiency
The faster the heart rate the more deficient the yin fire has become. Dr. Chang refers to this as a deficiency of substances, such as blood, hormones and proteins.

Treatment Principle:
Nourish yin, clear deficiency heat with herbs and diet (no needling)

Possible Formulas:
Mild tonics such as Ren Shen Yang Ying Tang (Ginseng Decoction to Nourish the Nutritive Qi)
Liu Wei Di Huang Wan (Six-Ingredient Pill with Rehmannia)

Other Recommendations:
Patients need to eat more, especially red meat such as beef. Nutrients from food are
essential for recovery. Avoid raw foods.

**Contraindications:**
Strongly warming or tonifying herbs cannot be handled by these patients. When used, deficient fire will flare up and patient may experience symptoms of irritability, restless sleep, hot flashes, etc. Needling is contraindicated.

**MORE SPECIFICS JUST ON THE SYSTOLIC AND DIASTOLIC PRESSURES**

**Type 5: High Systolic and Diastolic Pressures:**

**Description:**
Patients with this type have both high systolic (>170 mmHg) and diastolic (>110 mmHg) blood pressures, and are usually robust and appear overweight. Left unchecked for ten years or more, this condition puts the patient at high risk for myocardial infarction. Left untreated for over twenty years, stroke is likely to occur. Renal hypertension is also a likely consequence if left untreated.

**Measurements:**
Systolic > 170 mmHg  
Diastolic > 110 mmHg

**Pulse Quality:**
Thick and forceful indicating hardening of the vessels and sympathetic hyperactivity. Left *CUN* pulse will be a *gu* pulse  
Right *CHI* pulse may be a turtle pulse or just generally thick and forceful. This indicates that blood flow to the head is reduced due to neck tension.

**Diagnosis:**
Blood Stasis and Heat
Treatment Principle:
Move Qi and Blood, Clear Heat, Drain Dampness

Possible Formulas:
To lower blood pressure use:
Mao Dong Qing (Radix Ilicis Pubescentis)
Shui Ding Xiang (Herba Ludwigiae Prostratae)
Xiang Feng Cao (Herba Bidentis)
Chuan Niu Xi (Radix Cyathulae)
Di Long (Pheretima Lumbricus?)

For neck tension add:
Ge Gen Tang (Kudzu Decoction) OR Flex Spur (this is Dr. Chang’s special formula, and is made by Evergreen herbs)

Dietary and Other Considerations:
Avoid all carbohydrates (except wheat) and reduce meat consumption, concentrating on vegetables. Consume as little food as possible, always remaining slightly hungry. Reduce meals to twice per day. This is essential to improving this precarious situation, even though it may constitute a challenge to the patient.

Regular gua sha, cupping, or massage to release the tension in the neck can be also very helpful.

Contraindications:
Avoid tonic herbs to prevent more stagnation from forming. Use only when necessary.

Type 6: High systolic, normal diastolic pressure:

Description:
In this case the systolic blood pressure is above 170 mmHg, but the diastolic blood pressure remains normal (around 80 mmHg). This blood pressure presentation is usually due to constriction in the neck area, stenosis of the spine or the carotid arteries, bone spurs or muscle tension resulting in poor blood flow to the head and increased
pressure rising upwards.

**Measurements:**
Systolic > 170 mmHg  
Diastolic normal (around 80 mmHg)

**Possible signs and symptoms:**
Neck pain or headache are common symptoms.  
Neiguan (Pericardium 6) will be pale upon examination, indicating poor blood flow to the head.  
Possible purplish tongue or brown spots on the neck area of the ear.

**Pulse Quality:**
Right CHI is thin and tight. The thinner and tighter it is the more severe the neck constriction and the higher the blood pressure.

**Diagnosis:**
Blood and Qi Stagnation in the Neck area

**Treatment Principle:**
Move Qi and Blood in the neck with herbal formulas, gua sha, massage or cupping.

**Possible Formulas:**
*Ge Gen Tang* (Kudzu Decoction) and/or Dr. Chang’s formula *Flex Spur*, available at Evergreen Herbs  
For headache add *Chuan Xiong Cha Tiao San* (Ligusticum Chuanxiong Powder) to be taken with Green Tea.  
For blood stasis add *Shen Tong Zhi Yu Tang* (Drive Out Blood Stasis from a Painful Body Decoction) and *Zheng Gu Zi Jin Dan* (Purple and Gold Pill for Righteous Bones). If blood stasis is present, patient will present with a purplish tongue and/or brown spots on the neck area of the ear.  
For heat add *Ge Gen Huang Qin Huang Lian Tang* (Kudzu, Coptis, and Scutellaria Decoction)
Other Considerations:
Check the height of the patient’s pillow for proper ergonomic alignment. Recommend hot baths, yoga and/or stretching exercises to the patient.

Contraindications:
None noted. Avoid using tonics unless necessary.

Type 7: High Systolic and Low Diastolic Pressures 160/75 mmHg

General Manifestation:
Systolic pressure is above 160 mmHg and Diastolic Pressure below 75 mmHg. This indicates a heart valve problem with blood regurgitation. The heart is too weak to pump enough blood through it, causing a back up of blood.

Measurements:
Systolic > 160 mmHg
Diastolic < 75 mmHg

Possible signs and symptoms:
Dizziness, headache, shortness of breath and fatigue, especially upon exertion. Examine the shins for edema. Check kidney function via lab tests.

Diagnosis:
Deficiency and Blood Stasis - Heart Qi and Blood deficiency, Heart Blood Stasis

Treatment Principle:
Tonify Qi and Blood of the heart, move Qi and Blood in the Upper Jiao

Possible Formulas:
Mao Dong Qing (Radix Ilicis Pubescentis)
Sheng Mai San (Generate the Pulse Powder)
Ge Gen Tang (Kudzu Decoction)
Shen Tong Zhu Yu Tang (Drive Out Blood Stasis from a Painful Body Decoction)
Zheng Gu Zi Jin Dan (Purple and Gold Pill for Righteous Bones)
Formulas such as Ge Gen Tang (Kudzu Decoction) can be added to enhance the overall effect.

**Contraindications:**
None noted.

To normalize a low diastolic pressure, the patient should be encouraged to eat more heartily, and include foods, such as red meat, to provide nutrients and blood flow to the organs and tissues.

**Type 8: Low Systolic and Low Diastolic Pressures**

**General Manifestation:**
Both systolic and diastolic pressure are below normal. The patient is in danger of suffering a stroke because the pressure outside of the blood vessels (in the connective tissue) is higher than the pressure inside the blood vessel. This can press into the blood vessel obstructing blood flow, resulting in stroke.

**Diagnosis:**
Qi and blood deficiency

**Treatment Principles:**
Tonify qi and blood

**Possible Formulas:**
*Bu Zhong Yi Qi Tang* (Tonify the Middle and Augment the Qi Decoction)
*Shi Quan Da Bu Tang* (All-Inclusive Great Tonifying Decoction)

**Contraindications:**
Avoid using heat clearing and other harsh herbs.

**Other Considerations**
Low systolic blood pressure (< 110 or 90 mmHg) indicates that the body is deficient and needs tonification. In this case dietary advice should include eating a more hearty diet including beef, which is high in zinc, in order to build more protein. Ideally beef should be included in every meal. Exercise in this case should be mild.
Type 9: Low Systolic and Normal Diastolic Pressures

General Manifestation:
This is just qi and blood deficiency.

Pulse Quality:
Can be merely small or thick, or weak and scattered.
Possible Signs and Symptoms:
Fatigue

Diagnosis:
Qi and blood deficiency

Treatment Principles:
Tonify Qi and Blood

Formulas:
Bu Zhong Yi Qi Tang (Tonify the Middle and Augment the Qi Decoction)
Shi Quan Da Bu Tang (All-Inclusive Great Tonifying Decoction)
If the pulse is thick and scattered, use Wu Wei Zi (Fructus Schisandrae Chinensis), Shan Zhu Yu (Fructus Corni) and Sheng Mai San (Generate the Pulse Powder).

Contraindications:
Avoid using harsh or strong herbs.

Other Considerations:
To normalize a low diastolic pressure, the patient should be encouraged to eat more heartily, and include foods, such as red meat, to provide nutrients and blood flow to the organs and tissues.
Type 10: Normal Systolic and High Diastolic Pressures

General Manifestation:
This indicates that the heart is weak and the patient may suffer from congestive heart failure.

Measurements:
Diastolic >95mmHg

Pulse Quality:
Can be merely small or thick, or weak and scattered.

Possible Signs and Symptoms:
Exhaustion, shortness of breath with exertion, lower limb edema, cough, stiff neck and shoulders.

Herbs:
*Ge Gen Tang* (Kudzu Decoction), *Ge Gen Huang Qin Huang Lian Tang* (Kudzu, Coptis, and Scutellaria Decoction).

Other considerations:
When high diastolic pressure is found, the patient should be advised to eat lightly and consume plenty of fresh vegetables.
About Jimmy Chang, MPH, PhD, OMD, L.Ac

Master Jimmy Wei-Yen Chang is a Doctor of Oriental Medicine trained in Taiwan and a licensed acupuncturist in California and New York. He has over 40 years of concentrated clinical experience treating over 500,000 patients, applying his expertise in differential diagnosis and herbal prescription. Master Chang is the author of the pulse diagnosis manual, Pulsynergy, and is currently in private practice in Hacienda Heights, California. He is widely recognized for his skills in correlating definitive pulse diagnoses with herbal prescription.

Live webinars and videos on Dr. Chang’s pulse system and prescriptions are available on www.eLotus.org

To Intern with Dr. Chang visit: http://pulsynergy.com/intern-with-jimmy/
ABOUT THE AUTHOR

Tina Chen, MS, LAc

Tina Chen is respected herbology expert holding a Masters of Oriental Medicine degree in Chinese Medicine and is a California Acupuncture Board Licensed Acupuncturist with extensive training and practice in pulse diagnosis and Chinese herbal medicine. She graduated from South Baylo University of Oriental Medicine, the University of California, Irvine, and pursued extensive post-graduate training in China at Anhui Hospital in Anhui, First Tianjin Hospital in Tianjin, and Guananmen Hospital in Beijing.

Tina is a Licensed Acupuncturist, also certified in Traditional Chinese Medicine by the World Health Organization, with specialties in herbology, gynecology, and internal medicine. She co-authored textbooks in Chinese herbology — Chinese Medical Herbology and Pharmacology in 2003 and its companion volume Chinese Herbal Formulas and Applications in 2008. In 1995, Tina became an apprentice of Dr. Jimmy Chang, and is a leading practitioner of Dr. Chang’s Pulsynergy method. Currently, she works at Evergreen Herbs and Jian Tai Clinic.