

Insights from a National Chinese Herbal Dispensary in Modern Healthcare

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Introduction to Kamwo Meridian Herbs

● We are a Traditional Chinese Medicine (TCM) herbal dispensary. Founded in 1973, we hold the distinction of being the oldest continuously running TCM dispensary in the United States. **With four generations of Chinese medicine experience, we boast a rich legacy of expertise.**

● Our staff consists of NYS (New York State) licensed acupuncturists who are certified to practice herbology within the scope of their license.

● We proudly serve not only our local community but also have a national presence, reaching all 50 states and beyond.



Our Dispensary Services



Compounding of raw herbal prescriptions:

assembling raw herbal ingredients in precise accordance with the details of each individual prescription



Compounding, cooking, and vacuum packing of custom raw herbal prescriptions in liquid tea form:

raw herbal prescriptions are cooked and packaged onsite



Compounding of herbal granule prescriptions:

extracted and concentrated form of raw herbs (granules) are compounded to prescription specifications



Dispensing formulations in tablet, pill, or other finished manufactured products



Dosage review of all formulations:

including manual review of any dosage overrides by trained staff.



Compounding of topical formulations:

e.g. salves, compresses, soaks, etc.

Types of Herbal Prescriptions



Main Type 1:

Raw Herbal Prescriptions

Raw Herbal Prescriptions

Raw Herbal Prescriptions
(Cooked and Vacuum Packed)



Main Type 2:

Herbal Granule Prescriptions

Herbal Granules Prescriptions

Herbal Granules Prescriptions
(Encapsulated)



Main Type 3:

Herbal Prescriptions for Topical Applications

Compresses, Salves, Lavages,
Ointments, etc.



Raw Herbal Prescriptions

- **Consists of dried plant materials, including roots, leaves, bark, and other botanical substances.**
- Typically custom blends comprising a combination of herbs, and they are seldom employed as single herbs.
- Often draw from established formulas that remain clinically effective in modern times and are customized by practitioners to suit each patient's unique condition.
- Patients are typically required to take the raw herbal formulas home and decoct the herbs by boiling them to prepare their daily doses.
- The duration of a treatment regimen can vary, spanning from several days to several weeks.
- Most potent type dosage form.





Raw Herbal Prescriptions (Cooking & Vacuum Packing)

- **Eliminates the hassle of cooking teas for patients**
- Benefits of using stainless steel pressure cookers
- Capacity range from 22-45L/ Up to 60 days of herbal formulas
- 30-day shelf life at room temp, 60 days with refrigeration
- Amount of water and cooking time (preparation methods) are recorded digitally
- Vacuum Packed in 120mL **FDA approved PE pouches**
- **Start to finish, this process takes approximately 1:20**
- **Decoction are pasteurized** at high temp before vacuum packing to extend shelf life
- **FDA Registered Facility.** cGMP compliance.
- **Ready to consume after mixing and reheating.** No reconstituting needed





Herbal Granule Prescriptions

Herbal granules are concentrated extracts of raw herbs. Created through a process that involves low temp extraction, concentration, and drying of the decoction. Available as single herb ingredients & premade formulas

- Strongest dosage form after raw herbal preparation
- Concentrated extraction (5:1)
- Manufactured in a FDA registered GMP facility in China
- Resembles instant coffee in appearance and water solubility.
- High patient compliance
- Easily dissolved in hot water, creating an herbal tea for consumption.
- Still has herby taste, but not nearly as bad as decocted raw herbs





Herbal Granules Prescriptions (Encapsulated)

- **Capsules are ideal for those who prefer not to prepare or taste herbal teas.**
- Generally size 00 capsules, vegetarian caps.
- Amount of capsules needed can be intimidating
- Cost of encapsulation is relatively high as it is very labor intensive.
- Still relatively high patient compliance.
- Popular traditional formulations are readily available in capsule forms.





Herbal Prescriptions for Topical Applications



Compresses, Lavages, Salves/Ointments, Liniments, etc.
Common examples in CM:



**Lavages, e.g. for vaginitis,
dermatological conditions, etc.**

Vaginal washes are quite common in CM



**Compresses, e.g. for eye irritations,
joint inflammation, etc.**

Coptis for eye irritation



**Salves/Ointments, e.g. eczema,
psoriasis, trauma, etc.**

*Compounded with fine powdered raw herbs
incorporated in a variety of bases including simple
sesame oil base, White Pet, Polyethylene Glycol (PEG)*



**Liniments, e.g. for chronic joint pain,
minor skin conditions**

Alcoholic extractions- traditional rice wine

Non-alcoholic extractions - e.g. oil extraction

Evaluating Herbal Quality and Variations



**Chromatographic
Analysis**

**Traditional
Knowledge**

**Chemical
Fingerprinting**

**Organoleptic
Evaluation**



Chromatographic Analysis

High-Performance Liquid Chromatography (HPLC) and other chromatographic techniques are commonly **used to identify and quantify the active compounds in botanicals.**

This method helps determine the concentration of key constituents, such as specific active compounds or marker compounds, which are responsible for the therapeutic effects of the herbs.



Chemical Fingerprinting

Chinese Pharmacopoeia and other standards often **required for the establishment of chemical fingerprints for herbal ingredients.**

These fingerprints serve as a reference profile, showcasing the unique chemical composition of a particular botanical.



Organoleptic Evaluation

Sensory evaluation, including visual examination, aroma assessment, and taste testing, is an integral part of evaluating herbal quality in China.

Purveyors who source herbs may use their senses to detect variations in appearance, smell, and taste that **can provide clues about the potency and authenticity of botanicals.**



Traditional Knowledge

Traditional Chinese medicine practitioners rely on their extensive knowledge and experience to assess the potency of botanicals.

They may consider factors such as the region where the herbs were grown, the methods of cultivation, and historical usage patterns.



Comprehensive Testing in Herbal Products:

Heavy Metals Testing:

Lead (Pb), Mercury (Hg), Arsenic (As), Cadmium (Cd)

Microbial Contamination:

E. coli and Salmonella (bacterial pathogens)

Yeasts and Molds (fungal contaminants)

Total Aerobic Microbial Count

Total Combined Yeasts and Molds Count

Pesticide Testing:

Organochlorines: Persistent environmental pollutants, e.g., DDT (where still permitted)

Organophosphates: Broad-spectrum insecticides, e.g., Malathion

Carbamates: Similar to organophosphates, e.g., Aldicarb

Pyrethroids: Synthetic versions of natural insecticides, e.g., Permethrin

Neonicotinoids: Common in agriculture, e.g., Imidacloprid

Herbicides: Non-selective and selective, e.g., Glyphosate

Technological Innovations in Herbal Dispensary Operations



Kamwo E-Script System:

Our advanced electronic prescription system, in operation since 2005, predating its widespread adoption in many Western pharmacies.



GAC Granule AccuCheck System (GAC):

Our digital system for herbal granules, GAC, ensures precise dispensing with barcodes while seamlessly tracking lot numbers and expiration dates, enhancing traceability and safety.



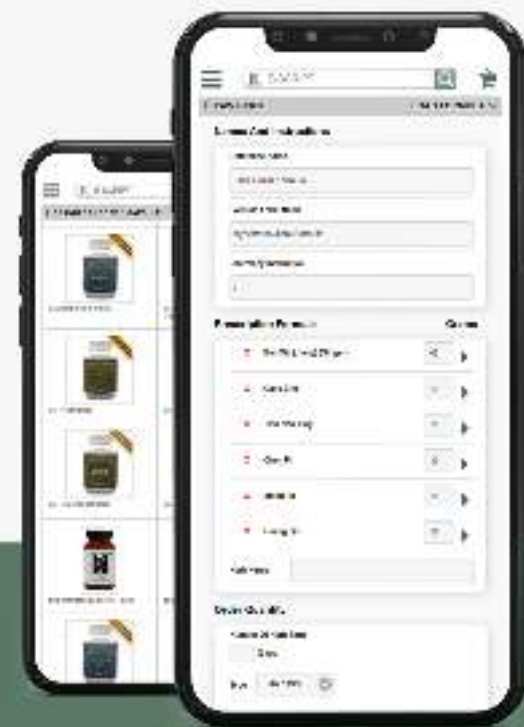
Integration with TCM Suite (EMR):

Our Kamwo E-Script System seamlessly integrates with TCM Suite, our Electronic Medical Records (EMR) software designed for Chinese Medicine practitioners. This integration enhances communication and coordination between practitioners and our dispensary, streamlining the prescription process for improved patient care.



Kamwo E-Scrip Electronic Prescription System

- Kamwo's proprietary E-Scrip System, a **HIPAA-compliant** electronic prescription platform.
- **Advanced functionalities including translation of English based prescriptions to Chinese**, dosage accuracy checks, patient dietary restriction alerts, and herb-to-herb interaction monitoring.
- **Comprehensive record-keeping capabilities for prescriptions**, patients, and practitioners.
- **Integration with TCM Suite, our Electronic Medical Records (EMR) software**, for seamless patient management.
- **Integration with our GAC Granule AccuCheck System (GAC) for digital herbal granule prescription filling**, ensuring accuracy and safety.
- **Trackability of prescription history**, enabling efficient patient care.



Granule AccuCheck System (GAC)

GAC, Kamwo's state-of-the-art digital system for filling and compounding granule prescriptions with precision. Utilizes barcoding technology to verify the accuracy of herbal granules and their quantities.

- Performs mathematical calculations for precise dosing, minimizing human errors.

- Ensures safety, accuracy, and quality control in herbal formula dispensing

- Tracks and records granule lot numbers and expiration dates for easy traceability.

- Enhances overall dispensary efficiency while minimizing human error



TCM Practitioners: The Healthcare Providers Behind Herbal Prescriptions

- ✓ **Licensing Requirement & Scope of Practice** - 46 US states have a licensing requirement for acupuncture

Many of them includes herbology in their scope of practice, e.g. NY, CA, OH, FL

2018 NIH statistics - there are 37,886 Lic Acupuncturists

- ✓ **Educational Requirements - graduate program, 3-4 year Masters or 6 years Doctorate program**

With over 50 accredited CM institutions

- ✓ **Comprehensive Curriculum:** Their education encompasses a broad spectrum of subjects, which includes western sciences, such as anatomy, biochemistry, pathophysiology, pharmacology, physiology, physical exams, ONE, and more, in addition to their regular Chinese medicine classes

- ✓ **Diverse Practitioner Community:** majority of practitioners and their patients are not ethnically Chinese or Asian

- ✓ **Clinical Oversight:** TCM practitioners have clinical oversight of herbal prescriptions for their patients, ensuring safe and effective treatments and taking responsibility for patient outcomes.



THANK YOU!



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