

## Chapter Four: Coursing and Discharge

The Western medical gaze developed a structure–function epistemic method that supported a physicalist view of the body. Its investigations assumed that physical anomalies corresponded to mechanisms of dysfunction and sought to identify morphological changes with functional changes. The premodern Chinese medical gaze understood that observable manifestations indicated interior processes:

Governing viscera and governed parts, the vital inner core and the expressive surface — all these are related in the same way that roots and stem are related to the leaves and blossoms ([Kuriyama 1999, p. 187](#)).

The implications for Chinese conceptions of the medical body were developed through the repeated testing of ideas and interventions over time.

When China’s early medical scholars and physicians investigated the living body, they identified its fundamental components as the basic physiological substances (*qì*, blood, fluids and essence), the channels that circulated them, and the internal visceral systems that transformed and protected them. The *Inner Canon (Plain Questions Treatise Five)* says that the density of the body interior is maintained by the inward movement of *yīn qì* (阴气), while the interior’s functional activities contribute to the outward movement of *yáng qì* (阳气) to the body surface. The clear *yáng qì* effuses outward (发 *fā*) to permeate and fill the spaces in the skin and muscles and strengthen the four limbs. Unclear *yīn qì* returns (归 *guī*) to the *yīn* and *yang* organ systems. The *yīn*’s inward movement brings about a convergence of essential *qì* that creates substance and structure ([Rochat de la Vallee 2006](#)).

By observing manifestations at the body surface Chinese medicine’s model of organ–channel systems incorporated relationships of ‘governance’ (主 *zhǔ*) that connected organs, senses, emotions, tissues, structures, regions, substances and process events. Thus, kidney depletion can manifest in lumbar pain or hair loss, and liver disorder can manifest in blurred vision or thickening of the nails. Even though these relationships are not discernible by dissection, they have been confirmed over time by clinical observation and therapeutic intervention. With every clinical encounter, classical and premodern conceptual models and textual information are deployed to address a specific and individual instance of disorder.

To explore the clinical relevance of these concepts and constructs today, the next four chapters turn to their textual representations and deployment in practice — the medical perspectives and methods that guide the practitioner’s clinical perceptions and therapeutic decisions. They begin with Chinese medicine’s representations of the interior *yīn* and *yang* visceral systems (脏腑 *zàng fǔ*): Chapters Four and Five will focus on an example of each, the liver *zàng* in this chapter, and the triple burner *fǔ* in the next.

Rather than attempt a comprehensive discussion of the Chinese medical liver, a specific focus on its governance of ‘coursing and discharge’ will survey three areas of interest for contemporary clinicians. The chapter explores an example of the Chinese medical gaze with regard to the internal visceral systems. It demonstrates the flexibility of Chinese medical conceptions that have adapted to incorporate recent clinical research outcomes; and it discusses an example of the kind of terminological and transmission issues that beset English-language students of the discipline. The discussion of the liver’s so-called ‘free coursing’ function will restore some of the depth and scope of the liver’s traditional influences and associations.

The first section takes up Chapter Three’s explanation of Chinese medicine’s visceral manifestations (脏象 *zàng xiàng*) epistemic to introduce its traditional diagnostic methods. At the heart of Chinese medicine’s internal intelligibility is the source–manifestation logic of its potentials and manifestations (道象 *dào xiàng*) perspective on reality. The first section will help to locate the application of early China’s worldview to diagnostic thinking. In the clinical setting, manifestations range from subjective sensations, responses and emotions to clinically observable information to reveal the ‘source’ — the nature or pattern of disorder. The clinical interpretation of manifestations is based on the clinician’s understanding of the body, its *qì*-influences and substances, and the mechanisms of disorder. Diagnosis organises manifestations into medically meaningful information (such as the 证 *zhēng*-patterns), and therapy responds to the specific manifestations of each individual patient. In TCM, treatment strategies and methods match the *zhēng*-pattern/s identified (辨证论治 *biàn zhèng lùn zhì*).

The second section introduces the liver *zàng* and uses this one example of Chinese medicine’s *yīn* visceral systems to explore how its visceral manifestations method has produced reliable, repeatable data concerning the liver’s *qì*-processes and relationships. Traditionally, the liver’s associations and functions include its governance of the sinews, nails, vision, rational thinking and planning, its storage of blood and the sentient soul (魂 *hún*). The discussion however will focus on a single aspect of liver governance, its coursing and discharge (疏泻 *shū xiè*) *qì*-functions.

Orderly liver ‘coursing and discharge’ maintains the unobstructed movement of *qi* influences and substances. Unobstructed, free movement promotes the harmony of *qi* and blood and facilitates normal visceral systems’ activities. The discussion will reveal the absence of *xiè*-discharge functions in the English literature and reinstate its meanings and interpretations. It will demonstrate how the broad influences of this one aspect of liver *qi*-function (*shū xiè*) have an intermediary effect on a very large range of physiological processes, substances, tissues and structures.

This chapter’s examination of classical, contemporary and research materials also restores some traditional features of the Chinese medical liver. The importance of traditional conceptions is that they connect the clinician to Chinese medicine’s textual archive. In this case the chapter shows how they help link areas of Chinese medicine that are unrelated in English — TCM basic theory content, and Chinese medical practice discussions, with biomedical perspectives and research. Using English-language sources alone, it is not easy to extend TCM’s basic theory textbook content for the liver *zàng* to the unpredictable manifestations encountered in clinical practice. It is even more difficult to connect them with biomedical perspectives or with bio-scientific research into Chinese medicine.

The third section’s examination of terms and clinical applications will show how Chinese medicine’s premodern perspectives concerning the liver can indeed lend support for some of the interpretations developed in recent times by TCM authors and researchers. The chapter will highlight relevant terms, their traditional conceptions, and their clinical relevance with reference to three types of publications. TCM’s basic theory texts cover the fundamental information that guides student learning; the case records of China’s famous physicians attempt to convey the subtlety and finesse of experienced medical practice. Basic theory and case discussion publications respectively, interpret and apply classical information for medical practice. A third type of Chinese medicine discourse comprises recent bio-scientific research that tests traditional therapies to develop links with the biomedical perspective. Broadly speaking, students of Chinese medicine rely on the first, clinicians move on to the second, and bio-scientific researchers are inclined to prefer the third and overlook the other two.

### Visceral manifestations theory

In the early medical classics the living body’s *qi* processes produce the body form and its manifestations. Chinese medicine’s inference of orderly and disorderly *qi* processes from observable manifestations follows the source–manifestation logic of China’s early *dào–xiàng–qi* onto-epistemic. In Chinese medical ontology ‘there was no ... mediating device between absolute truth and perceived reality’ ([Hay](#)

[1994, p. 18](#)). The Chinese medicine clinician gathers signs and symptoms, the manifestations of functional disturbance, directly from the patient.

TCM's visceral manifestation theory (藏象学 *zàng xiàng xué*) is an empirical method whereby the activities of the internal organ systems are inferred from observable external signs. Paul Unschuld ([2003](#)) argues that, although the visceral manifestations theory itself was only so named in recent decades, the early Chinese texts that document the development of *zàng xiàng* are clearly established. From the Song onwards, the visceral manifestations doctrine became a systematic articulation of the human body's *qì*-influences, substances and activities, and is generally agreed to be a key methodological component of Chinese medical practice today.

The method evolved from Chinese medicine's historical methods of observation and the correspondences found between interior visceral systems and their functions (the 藏 / 脏 *zàng*), and their exterior manifestations (the 象 *xiàng*) ([Jiang 2005](#); [Zhang 2007](#)). The *Inner Canon* urged physicians to research 'the principles of activities' of the living body, and Liu Changlin (刘長林 1960–), author of *The Philosophy of the Inner Cannon and the Methods of Chinese Medicine* (1982), shows how the *Inner Canon* used *zàng xiàng* for its study of the body's *qì* physiology and pathophysiology. Interior *qì* activities are inferred by their observable manifestations, and *xiàng*-manifestations define the relationship between surface images and inner organs ([cited in Farquhar 1994](#)).

Chinese medicine scholars and commentators all agree that *zàng xiàng* is relevant only for a medicine of human life and its dynamic states, and has nothing to say about physical structures without life. Liu Changlin's discussion for example quotes two of the *Inner Canon*'s most famous commentators on this point, Wang Bing (王冰 c. 710–805) and Zhang Jiebin (张介宾 1563–1640). The *zàng xiàng* focus 'is much discussed as a fundamental characteristic' of Chinese medicine in contemporary theoretical discourses in the PRC ([Farquhar 1994, p. 65](#)). So today, as well as the seven characteristic features of premodern medical theorising identified in Chapter Two, TCM's visceral manifestations theory is an eighth defining feature of the contemporary tradition.

TCM's basic theory textbooks introduce the visceral systems immediately after their explanation of the basic conceptual frameworks (namely, 气 *qì*, 阴阳 *yīn - yáng*, 五行 *wǔ xíng*). Although the internal 'organs' (脏腑 *zàng fǔ*) are presented one by one, Chinese medical doctrines strongly emphasise the relationships between them. Western generated textbooks and Chinese textbooks in translation use 'Internal Organs' or '*zàng fǔ*' as the heading for their chapters on the internal visceral systems. Only occasionally is the term 'Visceral Manifestations Theory'

used. The heading in the English translation of a Chinese textbook for first year students in China's medical schools is titled 'The Bowels and Viscera'. The first sentence begins:

All knowledge concerning the organs is embodied in visceral manifestation theory, which includes not only the organs' anatomy, physiology, and pathology, but also the identification of disease patterns and their treatment. ...Disturbance of normal mental and emotional activity may affect ... the organs causing physical illness; similarly disease of the organs may affect normal mental and emotional activity ([Wiseman & Ellis 1996, pp. 51-52](#)).

Chinese TCM texts in English frequently apply bio-scientific terms in questionable ways — the inclusion of 'anatomy' and the mind–body demarcation in the quotation above for example. Even though visceral manifestation theory does not utilise anatomical data and the West's mind–body dichotomy has never applied to Chinese medicine's analysis of human life, contemporary TCM texts seem obliged to mention them. Perhaps this is to conform to the scientisation of Chinese medicine or to accommodate twentieth century and twenty-first century reader expectations. In the above quote, linear causal logic is used to connect the physical and mental aspects of the living body. In Chapters Six and Seven, premodern body–mind representations will be shown to be more synthetic and relational due to Chinese medicine's *qi*-based analyses.

While Chinese medicine's notion of the viscera and bowels include their physical structures, early medical theory–practice pays little attention to anatomical information. Instead, the emphasis is on their functions and areas of influence that extend throughout the living body. In both premodern texts and in TCM textbooks, each organ system has multi-functional influences and associations. The liver *zàng* influences for instance, are associated with the movement of *qi*, the storage of blood, the external genitals and medial aspect of the legs, the top of the head, the nourishment of the eyes, sinews and nails, and much more.

Because each of the body's visceral systems are associated with specific senses, substances, tissues, mental–emotional abilities and responses, a disturbance affecting the visceral system could be observed from changes in their associated functional areas. To observe such manifestations medical diagnosis relies on the 'four methods' or 'four examinations' (四診 *sì zhěn*). To gather information about the patient's condition the practitioner uses looking, smelling and listening, asking and feeling (望闻问切 *wàng wén wèn qiè*). The 'four methods' were established as a systematic approach to diagnosis only towards the end of the Qing dynasty (1616–1911). But as for visceral manifestations theory, the four methods are based on the investigative approach first formulated in Chinese medicine's early classical literature.

In the early medical classics, diagnosis consists of identifying an illness by recognising its key manifestations. Once identified, the illness is matched with a formula or technique. In the Song the emphasis changed from the illness name to the patterns of manifestations. The primary focus of traditional diagnosis shifted towards organising clinical manifestations into 証 *zhēng*-patterns. The patterns of illness manifestations reflect the *qì* processes that are the illness. They reveal what functions are disordered, and the dynamic nature of their pathological changes (Deng 1999; Jiang 2005). When the diagnostic approach considers the processes and changes of illness (its patho-mechanisms), this introduces a greater range and flexibility to the application and modification of formulas and treatment methods.

The ‘*zhēng*’ label is given to a cluster or pattern of signs and symptoms that is known to clinicians because it occurs frequently in practice and in the clinical literature. For this reason perhaps, ‘syndrome’ is a common translation for 証 *zhēng* (see for example Xie 2002; and Yang & Meng 1998). A ‘syndrome’ is a biomedical term for a complex of symptoms and signs that indicate a particular disease or inherited abnormality. *Zhēng*-patterns do not actually refer to specific diseases or even to physical states so much as clusters of manifestations, or ‘manifestation types’ (Agren 1986, p. 215).

From the beginning of the twentieth century, Chinese medical diagnosis began to incorporate biomedical disease entities. The TCM diagnostic protocol today identifies the disease name (the biomedical disease category) as its first step. The second is to then identify nature of the person’s dysfunctional states, the *zhēng*-pattern/s of disorder. This means that any single ‘disease’ will have several or many possible manifestation patterns and mixed patterns, each of which reveals distinctive illness mechanisms that require individualised treatment strategies.

The importance of pattern identification for Chinese medicine today lies with the principle that ‘pattern identification determines treatment method(s)’ (辨证论治 *biàn zhèng lùn zhì*). Judith Farquhar (1994, p. 55) says this logical moment ‘is thought of as the crux of therapeutic intervention in Chinese medicine’. Here she does not distinguish between Chinese medicine and TCM, which perhaps allows the reader to suppose that *biàn zhèng lùn zhì* is a key feature of the historical tradition. Strictly speaking, it is a twentieth century construct (Scheid 2007), although Chinese scholar–physicians and Basic Theory textbooks trace the clinical application of patterns of illness manifestations to Zhang Zhongjing’s *Treatise on Cold Damage* (originally c. 200 CE).

Traditional medical practice requires an understanding of the manifestations and processes of illness, and of the influence of its therapeutic interventions. Tradition-

al medical methods are concerned with the person's overall dys/functional state, and a diagnostic pattern is like a summary of their specific *qi*-functional patterns at the time of consultation. Preceding the clinician's understanding of the illness manifestations and processes and the influences of therapies, lies another requirement for diagnosis and practice — a detailed image or conception of the living body. In the early classics, an understanding of the movements and inter-transformations of *yīn* and *yang* was sufficient to explain the body's structures and life functions.

The inward–outward movements of *qi* are an example of *yīn* - *yáng* transformations between the body interior and exterior. The inward–outward movement of *qi* accounts for the dispersed nature of internal visceral activities and responsibilities, and the appearance of functional (and dysfunctional) manifestations externally. John Hay (1983) and Manfred Porkert (1979) use the idea of 'unfolding' in relation to the influence of interior organ functions. The notion of 'unfoldments' represents the body core as relatively dense and its peripheries as more dispersed, a body image 'that is very suggestive for medicine' (Farquhar 1994, p. 96).

Hay and Porkert's 'unfolding' of interior visceral influences is a translation of 主 *zhǔ*-governance — Chinese medicine's observed relationships of governance or unfoldment account for its visceral associations, influences and manifestations. For example, *zhǔ*-governance links the liver *yīn* visceral system with its *yáng* organ partner, the gall bladder; and with the eyes, nails and sinews, the inner aspect of the legs; the free movement of *qi*, blood and fluids; with planning, insight and decision making; and with the ease and clarity of mental–emotional activities and responses.

Chinese medicine's *zàng*-visceral systems 'govern' and administer certain associated body tissues, sense organs, and *qi*-substances. The notion of governance also evokes a sociopolitical configuration of officials and their duties that bind together the parts and processes of the living human form. For the term 主 *zhǔ*, common language dictionaries note meanings such as 'govern', 'host', and 'head of a family'. TCM textbooks interpret *zhǔ*-governance as 'physiology' or 'function'; source-oriented Chinese medicine dictionaries such as Wiseman and Feng (1998, p. 244) note the meanings of 'control' and 'close association'; while Xie Zhufan's (2002) biomedical enculturation glosses have no entry for the term.

In its traditional context, the concept of *zhǔ*-governance, or 'unfolding', binds together particular substances, process events, organs and tissues in a way not discernible by anatomical investigations. As a mnemonic device, the notion of *zhǔ*-governance helps the student of medicine envisage a *qi*-based view of the body that attends to the influences and qualities of movement, time, transformation and relationship. The remainder of the chapter will explore the liver's unfoldments and

associations in more detail, and especially its governance of coursing and drainage.

### The liver: the ‘learned general’, the *zàng* of wood, the reverting *yīn*

Biomedical liver physiology is extensive and complex with over five hundred functions identified. The biomedical liver holds around thirteen per cent of the blood supply and secretes glucose, proteins, vitamins, fats and most of the other compounds used by the body. It regulates several hormones, and it metabolises those that do not reach their targets excreting the waste either through the urine or as bile. It is involved in the regulation of blood sugar levels, cholesterol metabolism and the storage of energy. It detoxifies alcohol, nicotine, drugs and other poisons, and produces blood-clotting factors, blood proteins, bile and more than a thousand different enzymes ([Harris, Nagy & Vardaxis 2006](#); [Nabors 1997](#)).

In the *Inner Canon, Plain Questions* Treatise Eight, the liver is likened to the office of a learned general who excels in strategy and resourcefulness. In the *Inner Canon* and in today’s TCM textbooks the liver is designated the *yīn* or *zàng* of the wood phase, and the gall bladder is the *yáng* or *fū* of wood. The liver channel is the ‘foot reverting *yīn*’ (the lower part of the 厥阴 *juéyīn* channel, one of the *liù jīng*-six channels), and the upper part of the channel is the ‘hand reverting *yīn*’, the pericardium. Macrocosmically the wind, the season of spring and the easterly direction are associated with the wood phase. Just as the reverting *yīn* is the end of *yīn* and beginning of *yáng*, the *qì* of the wood phase is the ‘young’ *yáng*. Spring is the season of transition from the cold darkness of winter to the warmth and light of summer.

In premodern texts and in TCM basic theory textbooks, the liver organ–channel system is also responsible for storing the blood, housing the sentient soul (魂 *hún*), and for nourishing the nails and tendons. It opens to the outside world via the eyes and governs the eyesight. Its sound is shouting, its smell is sour, its colour is blue-green, its emotion is anger, and its body fluid is tears. All contemporary Western- and Chinese-generated TCM texts in English agree on these associations.

Chinese medicine analyses its 脏 *zàng* visceral systems, according to their *qì*, blood, *yáng* and *yīn* qualities. ‘Liver *qì*’ and ‘liver *yáng*’ refer to the liver *zàng*’s dynamic and functional activities, while ‘liver blood’ and ‘liver *yīn*’ denote its more substantive and nourishing responsibilities. Similar categories apply to all the *zàng*-viscera. The focus here is on only one facet of the liver *zàng*’s responsibilities: its *qì*-functions. A similar analysis could be undertaken for its blood, *yīn* and *yáng* activities (Chapters Six and Seven will pick up on some aspects of liver



*yáng* and liver blood physiology). In this chapter, the liver *qì*'s responsibility to ensure 'orderly reaching' and the patency of *qì* movement will serve as an example of the subtlety and complexity of Chinese medicine's *yīn* visceral systems, and its visceral manifestations perspective.

The traditional Chinese liver is responsible for the free movement of *qì*. 'Free movement' maintains the smooth and even distribution of *qì*, blood and fluids. To achieve correct, free movement the liver must keep the channel system free of obstruction. The liver's 'free coursing' (疏泄 *shū xiè*) function is largely responsible for this. By way of explanation, premodern and contemporary discourses frequently invoke the liver *zàng*'s early association with the wood phase.

As with all the five phase correspondences, the liver's association with the wood phase bestows certain qualities to its channel–organ system and *qì*-functions. The liver commands the free movement of *qì*. The image is of the roots of a tree that spread deeply into the earth and its branches that extend and flourish in all directions. The nature of the wood phase and liver function correspond to qualities of emanation and emergence,

... issuance and distributing of blood and nutrients, effusion of the [essence] *qì* ... , promotion of high spirits in one's outlook on life, and the brightening of the vision owing to its [essence] *qì* reaching the eyes on its way out ([Liu & Liu 1980, p. 47](#)).

To ensure the life qualities of 'spreading and flourishing', the liver commands the orderly movement of *qì*, and to assist smooth circulation, liver *qì* functions help keep the channels unobstructed.

Various factors can disrupt liver *qì*-functions, the most common being mental or emotional stresses, in particular anger and frustration. The disruption to orderly liver *qì* movement will usually result in stagnation of the liver's 'orderly reaching' nature. Orderly *shū xiè* allows the free movement of *qì*-influences and substances. When *qì* and blood circulate smoothly the mind and emotions are clear and positive. When the liver's *qì*-function is impeded, the mind and emotions are depressed and confused. Disordered liver *qì* patterns manifest with discomfort in the rib-sides, a feeling of fullness in the chest, sighing, reticence and irascibility. Many cases of disorderly liver *qì* damage the spleen and stomach *qì* leading to poor digestion ([Yan & Li 2007a](#)).

Recent Chinese research has extended Chinese medicine's traditional interpretations such that today discourses on liver function may include aspects of neural, endocrine and immune physiology. Recent Chinese laboratory and clinical research testing the clinical link between the Chinese medical liver and biomedical

disease entities such as hyperthyroidism and diabetes, have used herbal preparations with actions known to restore the liver's 'free coursing' *qi* functions ([Flaws 2004](#); [Zheng & Song 1994](#); [Zhong & Tang 1994](#); [Zuo & Zhang 1994](#)). It seems improbable that the traditional liver associations and governance noted above could account for their research findings. Yet, even though traditional liver governance names only a few simple associations, their ramifications for the medical body are wide-ranging.

Traditionally, liver free coursing (*shū xiè*) benefits and enables physiology generally. In TCM texts, its functions are summarised as maintaining the smooth regularity of the whole body's *qi* movement, the production and secretion of bile, a happy emotional life and a clear mind. These few features of the Chinese medical liver have a pivotal role in facilitating a very large number of physiological processes and other life activities.

The term *shū xiè* first appears in *Extra Treatises Based on Investigation and Inquiry* written by Zhu Danxi (朱丹溪 1280–1358). According to Zhu:

Seal and store (封藏 *fēng cáng*) are controlled by the kidneys; dredge and discharge (疏泄 *shū xiè*) are controlled by the liver ([Zhu 1994 \(originally 1347\), p. 6](#)).

*Shū* and *xiè* mean 'dredge' and 'discharge' and they are normally viewed as describing one single function, namely, the liver's governance of 'free coursing'. 疏 *Shū* means to course, dredge, comb, untangle and smooth ([Wiseman & Feng 1998](#)). The liver *qi*'s *shū*-dredging and coursing helps clear turbid *qi* and wastes produced by the viscera, bowels and other tissues. It keeps the body's *qi* and fluid pathways smooth and free of obstruction. Orderly *shū*-coursing refers to the liver's ability to smooth and regulate the flow of *qi*, blood and fluids, and this aspect of liver *qi* is generally well documented in English-language texts.

泄 *Xiè* means discharge, emit, leak, release, secrete, drain, emission and diarrhoea ([Wiseman & Feng 1998](#)). In the context of liver *qi* functions, *xiè* means discharge and secrete. It includes external discharge as well as internal secretion processes, and refers to the orderly dispersal and discharge of the body's clear and turbid substances. In Chinese medicine, the expression 'clear and turbid' is used in two distinct ways. The first refers to 'clear and light' (*yáng*) and turbid and heavy (*yīn*) substances, both of which are essential physiological substances. The second refers more broadly to clear and essential *qi* substances, and to turbid, murky waste materials. The meaning of liver 泄 *xiè* function includes both — the secretion of essential physiological substances (for example bile), and the excretion of

waste (for example stool and urine), and as ever in Chinese medicine texts, correct interpretation relies on context.

The *xiè* aspect of liver *shū xiè*, has two kinds of discharge / secretion functions. One refers to the removal and excretion of waste substances from the body. The smooth circulation of *qì* and blood is clearly enhanced by this. The other kind of *xiè* function is the discharge and secretion of ‘essential’ *qì* substances such as bile. While all basic TCM texts agree about biliary secretion, other forms of liver *xiè*-discharge / secretion are not explained in theory textbooks or clinical discussions.

The liver’s *shū* and *xiè* functions have a mutually supporting and engendering relationship. While coursing and dredging ensure smooth flow, clear conditions and an optimum environment for *xiè* functions, *xiè*-discharge and secretion depend on, complement and enable *shū*-coursing. However, it is almost impossible to find any mention of *xiè*-discharge / secretion as it relates to the liver in contemporary Chinese medicine texts in English. The liver’s involvement in the internal secretion of bile is the only form of internal secretion in English-language TCM textbooks. Its *xiè*-function governing the external discharge of tears may only be inferred from the liver’s five phase association with the lacrimal fluids that moisten the eyes.

In the case of biliary secretion, the TCM liver and gall bladder overlap with the biomedical liver and gall bladder. The textbook explanation describes how surplus *qì* from the liver transforms to produce bile and is channelled into the gall bladder, and liver *shū xiè* governs its secretion and discharge into the body ([Wiseman & Ellis 1996](#)). From the biomedical perspective, bile is partially a digestive secretion and partially an excretory product containing waste from the breakdown of red blood cells. From the Chinese medicine perspective, bile is an ‘essential’ substance and the failure of liver *shū xiè* can disrupt its orderly secretion. When bile secretion is disordered it will manifest as intolerance to fatty, oily foods and distending pain in the rib-sides; it can disperse outside its normal pathways and manifest as jaundice or as a bitter taste in the mouth.

The liver channel connects with the liver and gall bladder organs and with the eyes. Tears are the body fluid associated with the liver, and lacrimation is an example of external *xiè*-discharge. Tears moisten, nourish and protect the eyes and excess or insufficient lacrimation is a manifestation of liver dysfunction. However, even in their discussions of bile and tears, English-language textbooks contain no explanation of the liver’s *xiè*-discharge and secretion functions. For that reason the following discussion will focus on the liver *xiè* functions and their contribution to its *shū xiè* responsibilities. It will incorporate the liver channel pathway to help explain relevant features and associations, and examples of disordered liver *qì*.

## Terms and clinical applications

The liver's channel connections help explain its role in disorders that are not usually associated with the liver *zàng*'s representations in TCM basic theory, or with biomedical liver pathologies. All today's main channel pathways are just as they were first described in the *Inner Canon, Divine Pivot* Treatise Ten. The *yīn qì* of the liver channel begins near the big toe nails and ascends through the medial aspect of the legs, then to the abdomen, rib-sides, neck, and ends at the top of the head. In the pelvic region it connects with the genitals, testes, ovaries and other reproductive structures; in the abdominal region it connects with the liver, gall bladder, spleen and stomach. Glands of the pancreas, which belong to spleen and stomach function in Chinese medicine, are also located here. From the abdomen, the channel continues through the chest region, it passes upwards through the neck and throat area, ascends to connect with the eyes, and ends at the vertex, the top of the head.

As well as describing the channel pathway and connections, the *Divine Pivot* Treatise Ten says that liver disorders can give rise to chest fullness, vomiting, hic-cough, diarrhoea with undigested food, inguinal hernia, bed-wetting, and urinary problems. These clinical manifestations are not normally associated with the biomedical liver. The *Divine Pivot* lists 'dysuria' (閉癰 *bì lóng*) for example, meaning 'difficult', 'obstructed', sometimes 'painful' or 'dribbling' urine. Even though most basic theory textbooks do not associate liver governance with excretory disorders, TCM acupuncture prescriptions often suggest liver channel points on the foot and lower leg (such as LR2-*xìngjiān*, LR3-*tàichōng* or LR5-*lǐgōu*) to treat dysuria when there is a pattern of heat and dampness obstructing the bladder ([see, for example, Cheng 1999; Ellis, Wiseman & Boss 1991; Maclean & Lyttleton 1998, 2002; Shanghai College of TCM 1981; Wiseman & Feng 2002; Xie 2002, 2003](#)).

Similarly, the type of diarrhoea (飧泄 *sūn xiè*) mentioned, does not refer to infections, parasites, food poisoning or colon diseases but to a disordered movement of liver *qì* 'invading' a depleted spleen. The 'Essential Formula for Painful Diarrhoea' (痛瀉要方 *Tong Xie Yao Fang*) is a famous herbal prescription for this illness — diarrhoea with abdominal pain due to disorderly liver *qì*. The formula is designed to relieve pain and regulate the stools; its action soothes the liver and strengthens the spleen. Soothing the liver in this case means restoring and regulating its *xiè* functions, the liver's role in the external discharge of waste materials.

**Essential Formula for Painful Diarrhoea (痛泻要方 *Tong Xie Yao Fang*)**

Dry-fried <i>Atractylodis macrocephalae</i> Rhizoma ( <i>chao bai zhu</i> )	12g
Dry-fried <i>Paeoniae Radix alba</i> ( <i>chao bai shao</i> )	24g
Dry-fried <i>Citri reticulatae</i> Pericarpium ( <i>chao chen pi</i> )	9g
<i>Saposhnikoviae Radix</i> ( <i>fang feng</i> )	6g

The formula supplements the spleen and soothes the liver; it transforms dampness and stops diarrhoea.

*Tong Xie Yao Fang* has been used in clinical trials for the treatment of irritable bowel syndrome (IBS) ([Bensky & Barolet 1990](#); [Flaws 2004](#); [Li et al. 2013](#); [Liu 2002](#); [Maciocia 1994](#)). IBS is a biomedical syndrome that is thought to be caused and exacerbated by mental–emotional stress. As early as the *Inner Canon* the liver *zàng* was known to harmonise mental–emotional activities and assist excretory functions. Its channel connections in the abdomen explain how gastro–intestinal tract disorders, particularly those with a mental–emotional component, can be related to the liver *zàng*. However, where contemporary TCM and clinical textbooks include liver *qì* patterns in their analysis of these disorders, the rationale will overlook *xiè*-discharge and emphasise the disruption of smooth flow (*shū*-coursing) as the relevant patho-mechanism.

The intermediary role of the liver’s governance of *shū xiè* influences many ‘discharge’ processes — external excretion and internal secretion processes. Chinese researchers explain the *xiè* function from the biomedical perspective: the external discharge of turbid *qì* is the removal of the waste materials of catabolism (the breakdown of molecules into smaller units). Anabolic cell activity producing complex molecules from smaller units, is the basis of the body’s clear *qì xiè*-secretions. The latter requires timely, unobstructed processes of ‘secretion’: complex (精 *jīng*-essence) substances such as enzymes and hormones are secreted by the gastro-intestinal, biliary and endocrine systems. Thus, as well as discharge of waste, the liver’s external *xiè*-discharge facilitates digestion, assimilation, menstruation, lactation and seminal emission. In fact recent research has linked several digestive, hormonal and other endocrine functions to orderly *shū xiè* ([Garvey & Qu 2001](#)). A few examples follow.

In the abdomen, the liver channel connects to the liver and gall bladder; it passes near the stomach and spleen, which in Chinese medicine incorporate the functions of the pancreas. Researchers investigating diabetes have noted the importance of emotional distress in its development, and that eye problems are one of its common complications ([Chen & Shan 2004](#); [Zhang 2004](#)). To a Chinese medicine practitioner, manifestations of emotional distress and eye problems immediately raise the possibility of liver dysfunction. When researchers such as Chen Jinding ([1994](#)) investigated the relationship between diabetes and liver *qi*, they found that emotional disorders could influence the hypothalamus and affect blood sugar concentrations in diabetes patients. Chen found that Chinese herbal treatment to rectify liver *qi* benefited diabetic patients with liver *qi* disharmony patterns when the usual strategies and methods had had no effect.

Chinese researchers have also linked the liver *zàng* with immunological functions, and with the secretion of hormones and neurotransmitters. The liver channel pathway passes near the hypothalamus, pituitary and adrenal glands, structures that govern many fundamental aspects of neurophysiology and immunology. The hormones released by the pituitary for example affect development (human growth hormone), milk secretion (prolactin), sexual and reproductive activities (luteinizing hormone). Some target other endocrine glands regulating the thyroid, ovaries and testes.

A common form of pituitary hyper-function known as hyperprolactinemia elevates prolactin levels that lower libido and often produce impotence in men. The condition is more common in women however, and key biomedical signs and symptoms include lack of ovulation, infrequent or absent menstruation and sometimes, spontaneous lactation. In the report of their clinical trial on hyperprolactinemia, Liu Yutan *et al* ([1995](#)) note that causal factors often include emotional depression, sudden anger, excessive grief, thinking and anxiety, and retention of phlegm (phlegm is a 'pathological' substance in Chinese medicine, meaning it is both the result and cause of illness and disorder).

The contributing factors listed are manifestations that signal disorderly liver *shū xiè* to a Chinese medicine clinician, and Liu *et al*'s treatment group received acupuncture to rectify liver *qi*. Post-treatment and long term follow-up tests showed that prolactin, follicle-stimulating hormone, luteinizing hormone, progesterone and estradiol levels returned to normal or near-normal levels in the majority of subjects in their acupuncture treatment group. Research suggests that properly functioning liver *shū xiè* regulates and stabilises the hypothalamus–pituitary–adrenal axis — a portion of the neuroendocrine system and the major regulator of hormonal activity and the immune mechanism ([reported in Garvey & Qu 2001](#)).

Chinese medicine's kidney and liver *zàng* are closely related to fertility and reproduction. From a Chinese medicine perspective, liver coursing and discharge (*shū xiè*) and kidney seal and store (封藏 *fēng cáng*) functions govern the physiological activities of the pituitary, pancreas, hypothalamus and other glands, guiding their secretions and the cascade of consequent processes and transformations. As we age, the liver and kidney *qì*-influences decline: their functions become less stable and the secretion of several kinds of hormones is affected. Biomedically, we know for example that estrogen and testosterone levels decline, and age-related ovarian resistance and insulin resistance (Type II Diabetes) increase.

In Chinese medicine, the liver system's relationship with reproductive functions is attributed to its *qì* and blood functions and to its relationship with the kidney. Together, the liver and kidney *zàng* form a fundamental axis of Chinese medicine *qì*-physiology, particularly with regard to sexual and reproductive functions, and the harmonious integration of liver course and discharge (*shū xiè*) and kidney seal and store (*fēng cáng*) is an essential component of their relationship. Furthermore, in the lower abdomen both channel pathways (liver and kidney) include the genital and reproductive structures. The 精 *jīng*-essence stored in the kidneys enables male and female fertility, and in women, the liver's orderly *shū xiè* and blood storage functions facilitate the menstrual cycle, pregnancy and delivery ([Lyttleton 2003](#); [Maciocia 1998](#); [Marchment 2007](#); [Tan 2002](#)).

After ascending through the abdomen the channel passes through the diaphragm and distributes over the ribs. The channel travels through the breasts and mammary glands, and here we have another example of the liver's external *xiè*-discharge. From the biomedical perspective, it is the hypothalamo-pituitary axis that helps regulate female reproductive functions including lactation; and from the Chinese medicine perspective, disordered liver *qì* is a common pattern in diseases such as mastitis and insufficient lactation ([Liu et al. 1995](#); [Marchment 2007](#); [van Buskirk 1996](#); [Xia et al. 1987](#)).

Healthy lactation involves not only mammary tissues and neuroendocrine functions, but mental-emotional, inherited and environmental factors that have always informed the clinical picture in Chinese medicine. Medical practice incorporates all these kinds of information as well as the observed systemic relationships such as the stomach and spleen governing the breast, the formation of breast milk from *qì* and blood, and the normal secretion of breast milk as regulated by the liver *qì* ([Fu 1996 \(originally, 1826\)](#); [Tureanu & Tureanu 1994](#); [Zhu 1994 \(originally 1347\)](#)).

Fu Qingzhu (傅青主 1607–1684) gives another example of how liver *shū xiè* assists the *qì* processes that transform and secrete milk. The stomach-*yángmíng* and

liver-*juéyīn* channel–organ systems govern the breast tissue and nipple respectively, and the formation and secretion of breast milk.

### Postpartum Depression (and) Binding Breast Milk Not Flowing Freely

After delivery, (some) strong young women, who may have overheard some unpleasant remarks, experience breast distention, fullness, and pain with stoppage of the breast milk's flow. ... [stomach-*yáng míng*] cannot transform milk unless its flow is freed by the *qì* of liver / wood. ... Transformation of milk does not depend on the blood but entirely upon the *qì*. ... The appropriate treatment method is to greatly soothe liver / wood *qì*. Thus the *qì* and blood of the *yáng míng* are naturally freed and the flow of milk will, consequently, also be freed. ... The formula is called [Free the Liver, Engender Milk Decoction (通肝生乳汤 *Tong Gan Sheng Ru Tang*)] ([Fu 1996 \(originally, 1826\), p. 131](#)).

#### Free the Liver, Engender Milk Decoction (通肝生乳汤 *Tong Gan Sheng Ru Tang*)

Paeoniae Radix alba ( <i>bai shao</i> )	15g
Angelica Sinensis Radix ( <i>dang gui</i> )	15g
Atractylodis Macrocephalae Rhizoma ( <i>bai zhu</i> )	15g
Rehmanniae Radix ( <i>shu di</i> )	3g
Glycyrrhizae Radix ( <i>gan cao</i> )	3g
Ophiopogonis Japonicae Tuber ( <i>mai dong</i> )	15g
Tetrapanacis Papyriferi Medulla ( <i>tong cao</i> )	3g
Bupleurum Radix ( <i>chai hu</i> )	3g
Polygalae Tenuifoliae Radix ( <i>yuan zhi</i> )	3g

The formula soothes the liver and releases constraint; it benefits the *qi*, nourishes fluids and blood, and frees the flow of breast milk.

Chinese medicine's theoretical models have been formed, discarded, adjusted and confirmed through centuries of clinical experience. For lactation disorders, Chinese sources show how a Qing dynasty physician and twentieth century researchers have applied and adjusted traditional representations of liver *shū xiè* functions and the liver channel pathway. Their published reports confirm that the resolution of lactation diseases can be achieved by restoring orderly liver coursing and discharge.

The examples above indicate just how varied the diseases and illnesses resulting from disordered liver *shū xiè* patterns can be, and by extension, just how wide-



ranging are the clinical effects of restoring orderly liver *shū xiè*. So long as disordered liver *shū xiè* is identified as the main pattern, a person presenting with any of the above illnesses and diseases are likely to experience some similar accompanying symptoms. Their subjective experiences are likely to include distending pain, irritability and agitation, and other manifestations matching the system's associations (tension in the muscles and sinews for example) and channel pathways (that travel from the first toe on both feet to the top of the head). Restoring the liver's orderly reaching by regulating its *shū xiè* function is therefore a common treatment principle for a large number of illnesses in contemporary clinics (see for example [Hou 1995](#); [Maciocia 1994, 1998](#); [Maclean & Lyttleton 1998, 2002, 2010](#); [Qian 2006](#); [Rossi 2007b](#); [Tan 2002](#); [Yan & Li 2007a](#); [Yue 2007](#)).

### Stagnation and constraint

The discussion of the *xiè* aspect of the liver's free coursing and discharge function (疏泄 *shū xiè*) above illustrates the clinical significance of traditional terms. The examples and explanations demonstrate the potential of source-oriented translation to transmit concepts accurately, and the advantages of accurate transmission for understanding clinical manifestations. Accurate understanding of 'shū xiè' allows the clinician to recognise the manifestations of dysfunction and to discern the patho-mechanisms of disorderly *shū xiè* functions. This section extends the analysis to the diagnosis of liver *shū xiè* patterns — successful treatment requires that the Chinese medicine practitioner applies appropriate strategies according to their differentiation of manifestation patterns, and a thorough understanding of the patho-mechanisms that vary from pattern to pattern.

Chinese medicine's basis in ancient philosophies investigating change and transformation has meant that there are many medical terms for disorderly movement, including impeded movement. For example, TCM textbooks use 瘀 (*yū*-stasis) for impaired blood circulation, the blood stasis pattern; 滯 (*zhì*-stagnation) as a general term for the inhibited movement of *qì* or food, including the liver *qì* stagnation pattern; and 郁 (*yù*-constraint) for the kind of liver *qì* stagnation that arises from 'emotional damage' — disorders caused by mental-emotional factors ([Zhang 2007](#)). Today, the character 郁 *yù* appears in the modern Chinese word for sadness and melancholy (忧郁 *yōu yù*) and in the Chinese translation of the psychiatric term for depression (抑郁 *yì yù*). TCM's use of *yù*-constraint for *qì* stagnation patterns due to mental-emotional (internal) factors is the opposite of its original meaning in the *Inner Canon*.

In the *Inner Canon, Plain Questions* the term 郁 *yù* is used for blockages and accumulations due to climatic (external) factors. It appears mainly in the treatises devoted to a complex system called ‘the five circulatory phases and six seasonal influences’ (五运六气 *wǔ yùn liù qì*). Their analysis of the seasons, their climates, changes and influences on the living body, described how extreme or untimely external factors such as summer-heat, dampness, dryness, wind and cold, disrupted correct *qì* movements, substances and influences. The pathogenic effects of these environmental *qì* are identified with various kinds of *qì* ‘blockage’, ‘collecting’, ‘pressure’, and ‘oppression’ — the translations given for the *Inner Canon*’s use of 郁 *yu*-constraint ([Tessenow & Unschuld 2008](#); [Unschuld & Tessenow 2011b](#)).

*Yu*-constraint was not a major feature of medical discourses however until the Song and Yuan dynasties, when Chen Yan (陈言 1131–1189) and Zhu Danxi (1281–1358) re-framed the idea and made it a key mechanism of many illness processes. While Chen Yan linked constraint with mental–emotional disorders, Zhu Danxi considered the emotions as just one of several factors causing constraint. Zhu divided the *yu*-constraint pattern into six subtypes (the stagnation of *qì*, dampness, heat, mucus, blood and food). His approach focused on understanding their illness dynamics. To guide the treatment of constraint, he composed the formula for the Escape Restraint Pill (越鞠丸 *Yue Ju Wan*) ([Scheid 2013](#)).

The potential for environmental factors to ‘block’ and constrain the *qì* influences and substances at the body surface had been well documented since the Han. From the Song dynasty, the work of Chen Yan and Zhu Danxi brought the pathogenic potential of prolonged or immoderate mental–emotional states into the foreground. They explained how mental–emotional factors could disrupt and constrain *qì* movement, and established the role and dynamics of emotional factors in internal disorders, the ‘internal injuries’ (内伤 *nèi shāng*).

In the Ming, Zhang Jiebin (1560–1640) distinguished between constraint patterns that arose from patho-physiological processes, and those that arose from mental–emotional states. And in the Qing (1644–1911), the ‘constraint pattern’ (郁证 *yù zhèng*) itself became an illness category, not only a mechanism of disorder. As an illness category, the constraint pattern was a mental–emotional disorder and its treatment required that the person develop insight regarding their perceptions, responses and behaviours. It was Ye Tianshi (1666–1745) who proposed that healing *yù zhèng* ‘all depends on the patient’s ability to transform emotions and change personalities’ ([Zhang 2007, p. 90](#)).

To succeed in treatment, the Chinese medicine practitioner must adopt appropriate strategies according to accurate terms, information, categories and patterns. How-

ever, English-language publications often do not adhere to the distinctions that may be clear enough in the technical language and context of Chinese source texts. Historically, the meanings for 郁 *yù* are varied and always context specific. In translation (for example, ‘stuck’, ‘stagnation’, ‘stasis’, ‘constraint’ and ‘depression’), the meanings for *yù*-constraint are varied and mostly not linked to their contexts.

The problem with this kind of terminological variance is that it makes it difficult for English speakers to accurately discern Chinese medicine’s diagnostic patterns, and misinterpretations can easily lead to ineffective treatment decisions. In most cases the Chinese terms and texts from which the English translations are derived are not mentioned, and this makes it impossible to cross-reference between texts and translations. Standardised, source-oriented translations can help contextualise and clarify terms. Once their meanings are clear, the patterns and mechanisms of disorder are more easily discerned, and accurate therapeutic responses (strategy, methods, prescriptions, and techniques) can be devised. In the case of ‘*yù*-stagnation’, standardised source-oriented translations would have to encompass several quite different meanings according to historical contexts and the interpretations of specific scholar–physicians.

In Western Chinese medicine clinics today, a pattern of ‘liver constraint’ (肝郁 *gān yù*), is easily confused with the biomedical disease category of clinical depression. This happens because, for one thing, the term 郁 *yù* is often translated as ‘depression’, although the meaning actually is supposed to convey that liver *qì*-influences are lessened, depressed and constrained. Furthermore, the term 郁 *yù*-constraint / depression describes the depressive mood that is associated with mental–emotional strain. Finally, the ‘liver *qì* constraint or depression’ pattern (*yù zhèng*) is very common in patients presenting with depression in today’s Chinese medicine clinics. The discussion of emotion-related illnesses in Chapter Six will revisit the liver’s role in stagnation and constraint patterns.

Orderly liver *shū xiè* enables the free and harmonious movement of *qì* and blood, and the free coursing of *qì* and blood in turn relaxes mental and emotional activities and responses: the person feels clear and positive. In today’s liver *qì* constraint (郁 *yù*) pattern, the liver *qì* is compromised, depleted and its movement constrained. The person is taciturn, sighs frequently; they are susceptible to doubt and confusion; they feel depressed and their chest or abdomen feels uncomfortable. In the liver *qì* stagnation (滯 *zhì*) pattern, the liver *qì* is replete and its movement impeded: the person feels physically and mentally restless, they are hot tempered and rash, they experience rib-side fullness and have trouble sleeping (Yan & Li 2007a).

\*

To begin a more detailed look at traditional conceptions of the Chinese medical body and its visceral manifestations, this chapter's discussion has moved from the overall body representations in Chapter Three to its interior *yīn* viscera, the *zàng* processes and transformations. Since here it is not possible to discuss all the visceral systems, the chapter has focussed on a single *zàng* system function — the liver's governance of 'coursing and discharge' — to focus on three areas of interest for contemporary clinicians.

The first is the orientation of the Chinese medical gaze which guides diagnostic and therapeutic decision making. The chapter argues that, although Chinese medicine's epistemic methods (such as visceral manifestations) are not anatomical or physicalist methods, they produce reliable data and repeatable interpretations. In Chinese medicine, broad functions such as coursing and discharge, storing blood, housing the sentient soul and so on, characterise the liver *zàng* visceral system. At the level of the clinical encounter, and with every therapeutic intervention, the broad categories and relationships of its classical models and premodern textual representations become infinitely detailed as they are applied to address specific and individual instances of disorder. After many years of study and practice using traditional methods, the clinician's ability to deploy material from the medical classics to specific clinical cases becomes more and more finely tuned. The experienced clinician is better able to incorporate the flexibility and responsiveness of Chinese medicine's concepts and methods.

The second area of interest concerns the flexibility of Chinese medical conceptions to incorporate recent clinical research outcomes. Orderly liver coursing and discharge maintains unobstructed movement, the harmony of *qì* and blood, and the integrated functions of the *zàng fǔ* visceral systems. In doing so, liver *shū xiè* has an intermediary effect on a very large range of physiological processes, substances, tissues and structures. The example of liver *shū xiè*, in fact, mainly the *xiè*-discharge / secretion aspect of liver function, served to establish the wide-ranging influences of this single feature of liver function against the backdrop of traditional and contemporary clinical perspectives.

While all basic theory textbooks agree about biliary secretion and the liver's governance of lacrimation (tearing), other forms of liver discharge / secretion do not appear in TCM theory texts, and where they do appear in clinical discussions, they are not explained. The liver *zàng* has two types of *xiè*-discharge / secretion functions. One refers to the removal and excretion of waste substances from the body. The external discharge of turbid *qì* removes waste materials, and the smooth circulation of *qì* and blood is clearly enhanced by this. The other kind of *xiè* function is the discharge of clear *qì*. This refers to processes of 'secretion', for example, the

enzymes and hormones secreted by the gastro-intestinal, biliary and endocrine systems. The clinical and research evidence cited in this chapter helps explain and extend the relationship between discharge / secretion processes (or at least their functional consequences) and the liver *zàng*'s *qì* influences.

According to traditional Chinese medical thinking, healthy liver *shū xiè* is the physiological representation of the wood transformative phase and its qualities of emanation and emergence. TCM has adapted classical images and interpretations so that Chinese medicine discourses today integrate relevant areas of neural, endocrine and immune physiology. With a more detailed understanding of *shū xiè* it is evident that the *xiè*-discharge / secretion function assists many of these systems and processes. For example, the physiological influences of the essential substances (精 *jīng*) stored in the kidney that enable ovulation, menstruation and lactation in women and seminal emission in men, depend on liver *shū*-coursing and on *xiè*-secretion / discharge for their timely, unobstructed release. From the viewpoint of today's clinician, this helps to explain why we place such importance on the liver–kidney relationship. Biomedically, the mutually supporting functions of liver *shū xiè* and kidney *fēng cáng* functions affect complex neural, endocrine and immune responses.

The third area of interest demonstrates the kind of terminological and transmission issues that affect English-language practitioners and students of Chinese medicine today. Examples of Chinese medicine terminology revealed some of the limitations of translation and Western transmission. The *zàng fǔ* interpreted as functional systems, biomedical organs, or the physical substrate of Chinese medicine's *qì*-influences; 証 *zhēng* as patterns or syndromes; liver *shū xiè* and the absence of *xiè*-drainage and secretion in English-language texts; the changes in the meaning of 郁 *yù*-constraint and recent confusion over its relationship to clinical depression. With some clarification of terminology, examples of contemporary clinical research actually help link the traditional Chinese medicine liver *zàng* system and its processes with biomedical structures, functions and disease categories.

To continue the more detailed examination of Chinese medicine's traditional conceptions of the body, the subject of the next chapter is one of Chinese medicine's *yáng* organ systems, the triple burner (三焦 *sān jiāo*). Although the liver and triple burner are not at all closely related in TCM basic theory textbooks, both areas of theory–practice and their mutually supporting *qì* relationships will return in the context of emotions, desires and physiological fire in Chapter Six.

## Chapter Five: Spaces and Textures

The *sān jiāo* (三焦), or ‘three burning spaces’, is unlike any biomedical entity and not only in name. The *sān jiāo* is even unique among Chinese medicine’s organ systems because it has ‘no form’ (无形 *wú xíng*), no apparent physical structure. The notion of ‘no form’ has led to ongoing debate in the Chinese literature concerning the nature of the *sān jiāo*, and in his *Correcting the Errors in the Forest of Medicine* (1830), Wang Qingren (王清任) rejected its existence.

In the West, the topic of the *sān jiāo* has also generated a considerable amount of speculation, disagreement and misunderstanding. Its name has been translated as the ‘three burning spaces’, ‘triple burner’, ‘triple energiser’, ‘triple heater’ and ‘triple warmer’. Some Western authors have identified it with the stomach, the stomach lining, the pancreas, the nervous system, the spinal nerves, the lymphatic system and endocrine system, none of which can be supported in the Chinese TCM or classical literature. Other interpretations draw on Han dynasty (206 BCE–220 CE) references to spaces and cavities ([Clavey 2003](#); [Qu & Garvey 2001](#)), or connective tissue structures ([Matsumoto & Birch 1988](#); [Orr 2001](#)). Some describe *sān jiāo* as a generalisation of visceral functions ([Sivin 1987](#)), or dismiss it as ‘a purely theoretical concept [or as] an innate source of warmth’ ([Unschuld 2003](#)). Others reject its relationship with its *yīn* partner, the pericardium, as tenuous and irrelevant ([Maciocia 1989](#); [Ross 1994](#)).

While the *sān jiāo*’s internal associations with the lung (and the upper *jiāo*), spleen (the middle *jiāo*), kidney and bladder (the lower *jiāo*) are well documented in English, its relationship to its *yīn* counterpart, the heart protector-pericardium, is often neglected in contemporary TCM textbooks. In the *Canon of Difficult Issues* (c. 100 CE), Issues 25 and 31 and their commentaries state that the *sān jiāo* and heart protector together constitute ‘outside and inside’ — the heart protector-pericardium enclosing the heart internally, and the *sān jiāo* completely enclosing the visceral organ systems and the entire body externally. In fact, the *Canon of Difficult Issues* Issue 38 compares the *sān jiāo* with an external wall. Its image of the body as an imperial city recalls the *Inner Canon*’s sociopolitical analogy of the body as state or empire. Issue 38 says that together the *sān jiāo* and heart protector are like the city walls that enclose the imperial palace internally to protect the heart-emperor, and externally the city itself ([Lo 2000](#); [Unschuld 1986](#)).