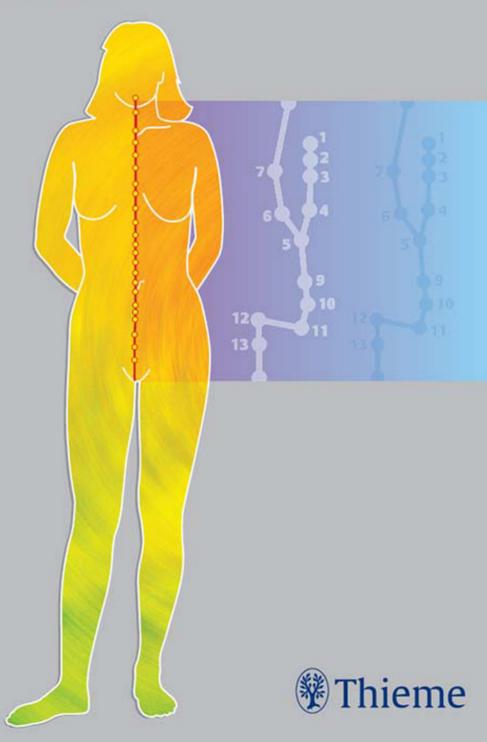


Medical Acupuncture in Pregnancy

Complementary Medicine

A Textbook

Ansgar T. Roemer, M.D.



Medical Acupuncture in Pregnancy

A Textbook

Ansgar T. Roemer, M.D. University Gynecological Hospital Mannheim, Germany

With contributions by: Thomas Kempfle, Ingrid Reuther

147 illustrations

Thieme Stuttgart · New York



Library of Congress Cataloging-in-Publication Data

Roemer, Ansgar T. [Akupunktur für Hebammen, Geburtshelfer und Gynäkologen. English] Medical acupuncture in pregnancy : a textbook/ Ansgar T. Roemer ; with contributions by Thomas Kempfle, Ingrid Reuther ; [translator, Ruth Gutberlet ; illustrator, Enbe-Design Baasner]. p. ; cm. Includes bibliographical references and index. ISBN 3-13-135831-9 (alk. paper) -- ISBN 1-58890-255-2 (alk. paper) 1. Acupuncture. 2. Pregnancy--Alternative treatment. 3. Medicine, Chinese. [DNLM: 1. Acupuncture Therapy--methods--Pregnancy. 2. Pregnancy Complications--prevention & control. 3. Medicine, Chinese Traditional--methods. 4. Prenatal Care--methods. WB 369 R715a 2005a] I. Kempfle, Thomas. II. Reuther, Ingrid. III. Title. RG129.A25R64 2005

618.2'4--dc22

1st German edition 1999 2nd German edition 2000

This book is an authorized and revised translation of the 3rd German edition published and copyrighted 2002 by Hippokrates Verlag, Stuttgart, Germany. Title of the German edition: Akupunktur für Hebammen, Geburtshelfer und Gynäkologen

Contributors:

Thomas Kempfle, Private Practice, Gevelsberg, Germany Ingrid Reuther, M.D., Private Practice, Grafschaft Karweiler, Germany

Translator: Ruth Gutberlet, M.A., CHom, Fulda, Germany

Illustrator: Enbe-Design Baasner

© 2005 Georg Thieme Verlag, Rüdigerstrasse 14, 70469 Stuttgart, Germany http://www.thieme.de Thieme New York, 333 Seventh Avenue, New York, NY 10001 USA http://www.thieme.com

Cover design: Thieme Marketing

Typesetting by Satzpunkt Ewert, Bayreuth Printed in Germany by Druckhaus Götz, Ludwigsburg

ISBN 3-13-135831-9 (GTV) ISBN 1-58890-255-2 (TNY) **Important note:** Medicine is an ever-changing science undergoing continual development. Research and clinical experience are continually expanding our knowledge, in particular our knowledge of proper treatment and drug therapy. Insofar as this book mentions any dosage or application, readers may rest assured that the authors, editors, and publishers have made every effort to ensure that such references are in accordance with **the state of knowledge at the time of production of the book**.

Nevertheless, this does not involve, imply, or express any guarantee or responsibility on the part of the publishers in respect to any dosage instructions and forms of applications stated in the book. Every user is requested to examine carefully the manufacturers' leaflets accompanying each drug and to check, if necessary in consultation with a physician or specialist, whether the dosage schedules mentioned therein or the contraindications stated by the manufacturers differ from the statements made in the present book. Such examination is particularly important with drugs that are either rarely used or have been newly released on the market. Every dosage schedule or every form of application used is entirely at the user's own risk and responsibility. The authors and publishers request every user to report to the publishers any discrepancies or inaccuracies noticed. If errors in this work are found after publication, errata will be posted at www.thieme.com on the product description page.

Some of the product names, patents, and registered designs referred to in this book are in fact registered trademarks or proprietary names even though specific reference to this fact is not always made in the text. Therefore, the appearance of a name without designation as proprietary is not to be construed as a representation by the publisher that it is in the public domain.

This book, including all parts thereof, is legally protected by copyright. Any use, exploitation, or commercialization outside the narrow limits set by copyright legislation, without the publisher's consent, is illegal and liable to prosecution. This applies in particular to photostat reproduction, copying, mimeographing, preparation of microfilms, and electronic data processing and storage.

About this book

Literature is not intended to replace classroom education. This text aims to help midwives, obstetricians, and gynecologists who are studying acupuncture in selecting the correct acupuncture points. A crucial aspect of this healing art is the proper stimulation of the specific acupuncture point. Only practice and experience will provide the practitioner with this skill. Textbook theory and hands-on experience in the classroom are the ideal combination for the student.

This textbook gives a concise overview of the theory of Traditional Chinese Medicine (TCM) for midwives, gynecologists, and obstetricians who want to go beyond the results of treatments that are based on common formulas. The book serves as a guideline to applying the voluminous theories of TCM in daily practice. The list of points and point categories as well as references to the TCM basics are part of the special focus that was placed on combining theoretical and practical aspects. Usually, the complicated concepts have to be compiled from various sources. Here, these concepts are clearly and concisely arranged, which makes this text valuable both for entry-level training and as a reference book. It is recommended for beginners of obstetric/gynecological acupuncture as well as experienced practitioners.

With increased knowledge comes a greater understanding of the importance of experience in daily practice. The practice of acupuncture is a never-ending learning process. Through this book, years of acupuncture practice and teaching experience are made available to the reader. An author still gains insights through the process of exchanging experience and thoughts with colleagues. The publication of this textbook gives me the opportunity to express my gratitude to the people who made a special contribution to my knowledge and experience.

I would like to express special thanks to:

- My acupuncture teachers, particularly Prof. J. Bischko (†), Prof. G. Kubiena, Dr. G. Stux, and the teachers I met during my studies in China
- Colleagues who passed on their vast experience to me, particularly Dr. *M. Adam* (Geburtshaus Wien-Nußdorf)
- My colleagues at the medical continuing education association Pro Medico who provided me

with a lot of inspiration and advice, particularly Dr. C. Gabriel, Dr. D. Klein, Dr. F. Ramakers, P. Rudolph, B. Seybold, Dr. K. Zähres, and all the association's midwifery advisors

- Dr. C. Gabriel, for her knowledgeable critique of the manuscript; B. Seybold for her many inspirations and her outstanding courses
- Hippokrates, for agreeing to various special requests and effectively implementing them in this book
- Dr. U. Novotny, the editor whose knowledge and patience greatly contributed to the creation of this book
- D. Seiz (†) of Hippokrates; she was open to all requests and suggestions and made all the means of the publishing house available to the successful production of this book
- Angelika-M. Findgott of Thieme International for her effective handling of the translation project and Ruth Gutberlet for rendering a fine translation
- Prof. F. Melchert (Director of the Gynecological University Hospital Mannheim), Prof. M. Weigel, and Prof. W. Zieger, for their advice and support in establishing acupuncture as part of medical training at the university level, as well as their support for various research projects and conventions.

I am most grateful to my family, particularly my wife, whose support and inspiration accompanied all my ventures into acupuncture. Over the past years, only her patience and support have made it possible for me to integrate family, medical practice, community service, teaching, presentations, conventions, and the work on this book.

Finally, thanks to everyone who was not mentioned here by name but helped my journey into acupuncture.

Once again, I would like to mention the particular significance of the late *D. Seiz.* Over the course of the past decade, we owe the publication of outstanding TCM teaching material in large parts to her. She had a unique way of joining opposites to help along the relevant matters. This book was written in her memory.

Ansgar T. Roemer

Contents

1 Introduction to Acupuncture and Traditional Chinese Medicine (TCM)

 What is Acupuncture? Acupuncture Arrives in Europe Acupuncture as a Regulatory Therapy 	2 2 3
The Basics of TCM	4
Tao	4
Life Force <i>Qi</i>	4
Five Phases	4
Concepts of TCM	5

2 Systematics

"Access To The Depth"—Xue: The Point	24
Acupuncture Points	24
Channel Points	25
Four Main Categories	26
The Five Transport Points	27
Tonification and Sedation Points	29
Acute (Xi) Cleft Points	29
Intersection (Group) Points	30
Confluence <i>Jiao Hui</i> Points	30
The Eight Meeting Points	
(Influential, Master Points)	30
The European Master Points	32
Extraordinary Points (Extra Channel Points)	34
A-Shi Points (Ouch Points)	34
Somatotopic Areas	34
Ear Acupuncture	34
Symptomatic Points	35
The Channel System of Acupuncture	36
System Overview	36
Three Channel Circulations	36
Channel Partnerships	38
Coupled Channels	38
Corresponding Channels	38

The Theory of <i>Yin</i> and <i>Yang</i>	5
The Five Fundamental Substances	8
The Five Phase Theory	10
The Internal Organ Theory (Zang Fu)	13
The Disease Concept of TCM	14
TCM Diagnostics	17
Tongue Diagnosis	18
Pulse Diagnosis	19
Disease Patterns	20

Extraordinary ChannelsThe Significance of the Channels for TCM	40 40
The 12 Regular Channels	42
The Yin Channels Kidney Channel Liver Channel Heart Channel Pericardium Channel Spleen Channel Lung Channel	43 43 44 45 46 47 48
The Yang Channels Large Intestine Channel Stomach Channel Small Intestine Channel Triple Burner Channel Bladder Channel Gallbladder Channel	49 49 50 51 52 53 54
The Extraordinary Channels Ren Mai Channel Du Mai Channel	55 55 56

3 Criteria and Rules

Methods of Locating Points	58
Prerequisites For Acupuncture Therapy	60
 Effects and Reactions Scientific Background The Effects of Acupuncture on Pain 	61 61 61
Integrating Acupuncture Into a Treatment Plan	64
Characteristics of Acupuncture During Pregnancy	67
Complications	68 69
Treatment Rules and Therapeutic Guidelines	70

Treatment Technique	74
Acupuncture	74
Moxibustion Therapy	79
Electrostimulation	80
Laser Acupuncture	80
Putens	81
Injection Acupuncture	81
Acupressure	81
Qi Gong	82
Organizational Model	83
Therapy Categories	83
Point Categories	83
Ear Acupuncture	85
Prerequisites For Acupuncture Therapy	
in a Clinic	86

4 The Practice of Acupuncture in Obstetrics and Gynecology

Obstetrics List of Indications	88 88
Pregnancy	89
Emotional Balance	89
Hyperemesis Gravidarum	90
Heartburn and Vomiting	90
Early Labor and Impending Premature	
Delivery	91
Infections During Pregnancy	92
Treatment of Addictions During Pregnancy	92
Breech Presentation	93
Gestosis	94
Pain Conditions During Pregnancy	95
Childbirth Preparation using	
Römer's Scheme (Mannheim Model)	97
Peripartal	100
Induction of Labor	100
Acupuncture During Delivery	100
Analgesia During Delivery	101
Dysfunctional Labor and Insufficiently	
Coordinated Uterine Contractions	102
Cervical Dystocia	103
Placental Detachment Disorders	104

88	Puerperium 100	õ
88	■ Involution Disorders 100	5
	■ Functional Disorders of The Breast 100	õ
89	Mental/Emotional Disorders During	
	Confinement 108	3
89	Constipation 109	9
90	Urinary Disorders 109	9
90	Emergency Points 110)
91	Acupuncture and Gynecology 11	1
92	Significance of Acupuncture 11	1
92	Acupuncture Indications For	
93	Gynecological Disorders 114	1
94	General Therapy Rules 11	5
95	Premenstrual Syndrome (PMS) 11	5
	Dysmenorrhea 11	5
97	■ Functional Disorders of the Menstrual Cycle 110	5
	Amenorrhea 11	7
00	■ Infertility 11	7
00	Menopausal Syndrome 11	7
00	Vaginal Discharge 118	3
01	Pruritus Vulvae 118	3
	Adnexitis 118	3
02	Chronic Pelvic Pain 119)
03	Low-Back Pain in Women 119)
04	Headache Syndrome—Hormone-Related	
	Migraine 120	
	Urethritis and Cystitis 12	1

Chronic Recurring Infections	121	Chronic Recurring Nonpuerperal	
Emesis and Chemotherapy	122	Mastitis	122
Mastopathy and Mastodynia	122	Pain Following Mastectomy	123
			173

5 Point Atlas

LU = Lung	126
LI = Large intestine	128
ST = Stomach	131
SP = Spleen	139
HT = Heart	144
SI = Small intestine	146
BL = Bladder	147
KI = Kidney	159
PC = Pericardium	163

GB = Gallbladder	165
LR = Liver	171
GV = Governing vessel	172
CV = Conception vessel	177
EX-HN = Head and neck	185
EX-CA = Chest and abdomen	188
EX-B = Back	189
EX = "Breast point in front of the axilla"	190
EX-LE = Lower extremity	191

6 Chinese Nutrition Therapy and Qi Gong

Chinese Nutrition Therapy	196
Introduction	
Points of Practical Importance	197
The Five Flavors	197
The Five Thermal Food Natures	198
Basic Recipes	198
Gynecological Aspect	199
Indications	202

Qi Gong	213
The History of <i>Qi Gong</i>	213
Qi Gong in Traditional Chinese Medicine	214
Perceivable Phenomena	215
Learning Qi Gong	216
■ Indications for <i>Qi Gong</i> Exercises	218
Contraindications	220
Side Effects	220

Appendix

American and International Tai Ji and	
Qi Gong Associations	223
Further Reading	225

 Introduction to Acupuncture and Traditional Chinese Medicine (TCM)

What is Acupuncture?

Definition of Acupuncture (after *De la Fuye*)

Acupuncture

- Uses metal needles (in the past, gold or silver needles);
- Is performed on specific points that can be sensitive to pressure or spontaneously painful;
- Is used in the case of reversible diseases or disorders that impact the functions of the organism;
- For diagnostic and/or therapeutic purposes.

Acupuncture is only a very small branch of Traditional Chinese Medicine (TCM). TCM encompasses far more possibilities than acupuncture alone. Also, acupuncture as we know it is often very much influenced by Western ways of looking at things. Although acupuncture in particular has risen in popularity in the West, it only makes up 15% of all therapeutic methods of TCM.

TCM regards humans as a microcosm within the macrocosm of the environment. TCM has nothing to do with mysticism, but rather exemplifies empirical and observational therapeutics that are based on the observation of nature and follow guidelines that can be studied and verified. The basis for this is a solid knowledge of ancient Chinese concepts of health, sickness, and pathogenesis. Every TCM treatment (e.g., with Chinese medicinal herbs or a special diet) is based on detailed observation and well-based diagnosis. It follows guidelines both of Western medicine and traditional Chinese rules. TCM's strength lies not only in its holistic approach to healing, but primarily in its regulative and prophylactic aspects.

Acupuncture is one of the most fascinating concepts of healing which human inventiveness has come up with outside of the Western medical tradition. *Zhen jiu*, the Chinese term for acupuncture, means "to stick and to burn," which indicates the use of a needle in connection with the warming of acupuncture points (moxibustion).

激 Acupuncture	<i>= Zhen jiu</i> (Chinese) = Needle
Jiu	= To warm (to burn moxa, a plant)

Needle acupuncture is the mode of acupuncture therapy known in the West. Moxibustion is used far less here than it is in China. According to Chinese tenets, acupuncture and moxibustion form an inseparable unit.

Moxibustion uses "moxa," which is extracted from the medicinal plant *Artemisia vulgaris*. More than 200 types of this species are known and they include mugwort, which is common in Northern Europe. The leaves of the medicinal plant are dried, pulverized, and pressed into small cones or sticks, also referred to as "moxa cigars." In accordance with traditional treatment procedures, a glowing moxa cigar supplies the acupuncture points with heat.

Acupuncture Arrives in Europe

The first accounts of acupuncture in Europe can be traced back to the 17th century, when they arrived from China via trade routes. Until the mid-19th century, acupuncture was conducted as a simple needle pricking without consideration for Chinese fundamental principles. Only since the mid-20th century has acupuncture been practiced increasingly in line with the principles of Chinese medicine. In Europe, the first scientific studies began in the 1960s. Prof. Bischko of the Ludwig Boltzmann Institute at the University of Vienna was especially renowned in the field of acupuncture.

There are obstacles for acupuncture to overcome before it can be integrated into Western medicine, because the Chinese conception of the world cannot effortlessly be transcribed into our system of medicine. It is based on the idea of balance, the harmonious relationship between the so-called five elements, and between the polarities of yin and yang. The five phase theory and the concept of yin and yang were initially philosophical concepts used to describe the universe. They were later utilized to describe all processes inside the body. The application of the five phase theory to the concepts of the evolution of human life, physiology, pathology, and pathogenesis can be found as early as 230 BC in the classic textbook on internal medicine-the so-called Nei Jing.

Acupuncture as a Regulatory Therapy

Acupuncture is a holistic therapy mode, because it has an effect on the location of the therapeutic stimulus as well as on the entire organism. The "energetic equilibrium" that is observed by TCM is called stimulation therapy in holistic medicine. This refers to the ability of acupuncture to balance the disharmonic functions of the organism by applying appropriate stimulation.

When the body's equilibrium is restored through regulation, diseases can be cured and functional disorders eliminated.

Acupuncture is especially effective when combined with other therapies. It also works well when used to complement the therapeutic approaches of conventional medicine. Even in ancient China, acupuncture was rarely used as a monotherapy. The combination of acupuncture and other therapeutic approaches frequently offers lasting relief and freedom from symptoms, especially in the field of obstetrics and gynecology.

Unfortunately, the past few years have shown an increasing tendency toward a rather careless application of acupuncture. The lack of side effects in acupuncture tempts some practitioners into using acupuncture without following a strict diagnosis ("it won't do any harm"). This approach needs to be rejected, as it wrongfully discredits acupuncture,

while preventing the application of other methods that might be more beneficial to the patient.

Acupuncture as a regulatory procedure is only beneficial when treating disorders, and not when treating destroyed structures.

Acupuncture is not suitable for treating the cause of organ lesions, malignant growths, severe psychiatric conditions, or acute life-threatening conditions. Furthermore, contraindications need to be taken into consideration.

By observing the following rule:

"Acupuncture can treat a disorder, but cannot mend what is damaged."

many established indications for acupuncture therapy can be derived. At the same time it keeps unreasonable expectations and improper application of the method at bay.

Acupuncture removes disturbances of vital movement by dissolving stagnations and blockages; it redirects or diverts blood, body fluids, heat, and energy. Acupuncture therapy rebalances the energy between different areas of the body, on the surface of the body, as well as between external and internal parts of the body. It restores internal balance and influences visceral organs by applying stimuli at the body's surface.

The Basics of TCM

TCM regards a human being as a system of functional networks. Ancient Chinese philosophy represents pre-Confucian and Taoist concepts. According to these concepts, nothing exists by itself isolated from others. Instead, everything always exists in reciprocal relationships and, thus, is subject to continuous dynamic change. In the understanding of the naturebased philosophy practiced by ancient Chinese physicians, man is an integral part of nature, constantly interacting with his environment. Like nature, he is subject to dynamic cycles and periodic developmental phases. To the Chinese, these transformations were manifestations of the laws of nature, called *tao*.

🔳 Тао

The Chinese word *tao* cannot be translated. Terms like "way," "sense," "pathway," or "regulation" only partially reflect the meaning of *tao*. *Tao* describes all of earth's processes as systematically connected and interrelated. This "order" is not static but dynamic, and keeps forming itself anew.

Tao is the structuring and regulating principle in which all existence and events are rooted, the "all-in-one."

The human organism is a classification system that follows the same laws as the rest of nature. Man must live in harmony with nature to protect himself and nature from damage. It is the responsibility of the physician to ensure that this takes place in the proper way. Thus, the main function of physicians in ancient China was to teach people about correct lifestyle, to prescribe diets in harmony with the seasons and the times of day, and to prevent diseases from forming by incorporating preventative measures.

Physicians were remunerated only for the preservation of health. In cases of serious illness, treatment was free of charge. The concept of *tao* was the starting point for the development of a holistic diagnosis or holistic therapy and today represents the commonly used term "holism." The term *tao* is also closely connected to the idea of transformation and change. It forms the basis of the Chinese concept of disease, as well as the theory of the phases and types of a disease.

Life Force Qi

The idea of a **life force** *qi* originates in the *tao*. *Qi* is energy, function, information, and substrate. *Qi* is a combination of prenatal or original *qi*, grain *qi*, and air *qi*. They form the true or normal *qi*. Applying modern medical understanding, the life force *qi* can be compared to the combination of genetics, metabolism, neurophysiology, immunology, and endocrinology.

Qi holds *yin* and *yang*, the pair of opposites. Only the union of *yin* and *yang* forms the all-encompassing harmony, the harmony within a constantly changing whole.

Yin is substance, builds up, is passive, stores, and is symbolic of the feminine. In Western medicine, *yin* represents parenchymatous organs, which store or produce vital substances such as blood. The storage organs are kidneys, lungs, spleen, pancreas, and heart.

Yang is active, is function, gives, and represents the masculine. In regard to the body, *yang* represents hollow organs such as the intestines, gallbladder, and urinary bladder, which handle the reception, transport, and secretion of nutrients.

In TCM, the aforementioned organs are not only represented by their anatomical structures, but also by interconnected functional networks and spheres. The **transformation phases** with complex functions and tasks are derived from these networks and spheres.

Five Phases

The following terms are used to organize, describe, and evaluate cyclical processes and the changes of energetic qualities:

- Wood (development)
- Fire (growth)
- Earth (transformation)
- Metal (absorption)
- Water (preservation)

The **wood** phase represents *potential* activity, while the *actual* activity is connected with the **fire** phase. Anticipated results that have not yet come into effect are assigned to the **metal** phase. The actuality of an event combined with structure signifies the **water** phase. The **earth** phase is associated with times of change and transitions from one event to the next.

The knowledge and understanding of the five phases is essential for medical practice. This knowledge provides an explanation for the formation and origin of disorders and diseases, as well as for the order in which a disharmony appears and should be treated (creation sequence and overcoming sequence, the *sheng* cycle and the *ko* cycle). Each of the five phases is assigned certain aspects, for example, planets, directions, times of day, seasons, colors, sounds, emotions, smells, tastes, the organs of the human body, the senses, tissues, and functions.

If the all-creating life force *qi* is disturbed by pathogenic factors from the "outside" or the "inside" and an imbalance of *qi* occurs, energy stagnation, energy vacuity, energy repletion results. Environmental influences that affect the person (macrocosm) or internal, emotional influences (microcosm) can be the pathogenic factors. These influences can only cause disorder or disease in a weakened person whose qi is already impaired. In order to get to the origin of the imbalance, the Chinese diagnosis puts special emphasis on the exploration of the exact case history, the examination of the tongue, and pulse palpation. In practice, acupuncture affects the energetic imbalance through a therapeutic stimulus or "needle prick." The stimulation takes place at exactly defined points that are connected by way of the so-called channels or channels. The energy flow of the body circulates in these channels.

The goal of acupuncture is to balance physical and emotional disorders, to restore the body's harmony in all its processes, and thus to reintegrate the sick individual into the social and natural order. According to the five phase theory, this includes the harmony between *yin* (energy vacuity) and *yang* (energy repletion), "internal" and "external," cold and heat, as well as balanced emotions, correct diet, and plenty of exercise.

Concepts of TCM

The concepts of TCM must be understood within a historical context. They originate from the observation of nature and are not based on current scientific knowledge. One outstanding characteristic of TCM is that it has always recognized man as an integral part of an all-embracing system. This realization has come into focus again ("holistic medicine"). TCM takes into account material and immaterial aspects of a person:

- Yin-yang polarity
- The five fundamental substances
- The five phase theory

The concept of TCM includes:

- 1. The theory of yin and yang
- 2. The five phase theory and the theory of the systematic correspondence
- 3. The theory of the internal organs (zang fu)
- 4. The theory of the life force *qi* and its channels of communication, called *qi* channels
- 5. The theory of the causes of disease, diagnostic methods, and the differentiation of disease syndromes
- 6. Theory and methodology; regarding acupuncture, the theory and methodology of acupuncture and moxibustion

These six aspects form the pillars of TCM. They can be applied to all TCM treatments: Herbal treatments, the movement therapies qi gong and tai ji quan, Chinese massage (tui na massage), as well as Chinese dietetics. Terms such as *yin* and *yang*, the *zang fu* organs, or the description of the life force qi may seem unusual to the Western scientific mind, but they are of vital importance for the understanding of Chinese medicine. Regrettably, the Western world is in the habit of neglecting the study of TCM concepts and often indiscriminately employs acupuncture as well as other methods of TCM. Thus, important correlations are often not recognized-resulting in diagnostic and therapeutic errors. For example, scientific research shows that the point combination for birth preparation is considerably less effective when based on Western concepts than on the Chinese selection of points.

The Theory of Yin and Yang

All things and manifestations of the universe are made of two principles that oppose each other—*yin* and *yang*. Each *yin* and each *yang* faces a complementing *yin* or *yang*.

The terms *yin* and *yang* have always been the center of Chinese thought. In early history their descriptions were rooted in cosmic/religious beliefs. Ever since the scripture *Shi Jing* (9th century BC), *yin* has stood for cloudy weather, rain, cold, the shady side

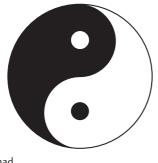


Fig. 1 Monad

of the mountain, below (earth), the internal, and the feminine. *Yang* represents sunny weather, warmth, the sunny side of a mountain, above (sky), the external, spring, growth, and the masculine. A change between the two polarities *yin* and *yang* indicates a transition from one condition into another. Thus, a change in either the *yin* or the *yang* condition indicates a change of the situation as a whole. Accordingly, *yin* and *yang* are contrasts that are mutually dependent, and complement or transform each other. They directly relate to one another and form a whole. The duality of this unity is symbolized by the monad *tai ji* created by a philosopher of the Sung period.

The big circle symbolizes the unity. The dark area represents the *yin* and the light area represents the *yang*. The oppositely colored point in each area signifies that *yin* is nascent in *yang* and vice versa. Both aspects originate in this way. The curved dividing line is considered mobile and illustrates the constant transformation of *yin* and *yang* and their mutually varying dependency. In this dynamic system, one of the components grows to the same extent to

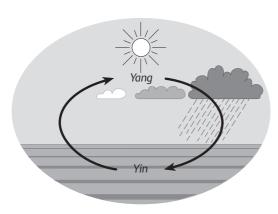


Fig. 2 Cyclical courses of natural phenomena

Table 1 Yin and yang in nature			
Yang	Yin		
Day Sky Sun Strong Bright Fast Left side of body Activity Man Positive Warm (summer)	Night Earth Moon Weak Dark Slow Right side of body Rest Woman Negative Cold (winter)		

which the other component diminishes. According to Chinese belief, change never moves in one direction only, as evolution does, for example. Rather, it is a movement that always returns to its starting point and needs to be understood as a sequence of recurring conditions and events in nature and in humans. The supposed change between *yin* and *yang* conditions is exemplified by the cyclical course of natural phenomena, as well as in the human organism.

The concept of *yin–yang* led to a systematization of the empirical knowledge of TCM. **Chinese medicine associates everything with the concept of** *yin* **and** *yang*, **including body regions, organs, functions, body types, patterns of behavior, and all other phenomena**. The occurrence of disorders and the course of disease processes are explained by the changing appearance of *yin* and *yang* patterns. The *yin* and *yang* theory provides medicine with four important rules:

- 1. **The principle of opposites:** The continuous struggle and the constant transformation between *yin* and *yang* advance the formation of all things, signifying life (life energy).
- 2. The principle of dependency: *Yang* exists through *yin* and *yin* exists through *yang*. Each one forms the basis of existence for the other, and together they represent life as such. *Yang* represents man; *yin* represents woman. Reproduction and the survival of the species would not be possible without *yin* and *yang*, man and woman.
- 3. The principle of complement and limit: As *yang* decreases, *yin* increases and vice versa. Within the human organism, the *yin–yang* rhythm, for example, corresponds to the 24-hour biorhythm of the parasympathetic and sympathetic nervous system, or to the course of the 28-day female cycle.
- 4. The principle of transformation: Once *yin* has reached its climax, it turns into *yang*, and vice

versa. Applied to medicine, this describes a sudden change of symptoms. For example, a severe febrile (*yang*) illness leads to a weakening of the patient (*yin* depletion). In TCM, this corresponds to the transformation from a *yang* pattern into a *yin* pattern. In a healthy condition, the relationship between all *yin* and *yang* parts is balanced, while excess or vacuity of *yin* or *yang* inevitably results in a disorder within the organism.

In TCM, health is described as a balance between *yin* and *yang*.

Yang cannot exist without its corresponding counterpart *yin* and neither the *yin* or *yang* element should ever be superior or inferior to the other. A balanced relationship between yin and yang characterizes the ideal state of harmony and balance in the organism. Yin and yang also represent relative concepts. An example from TCM: The organs of the human body are divided into yin organs and yang organs. The parenchymatous (solid) organs, heart, kidney, liver, lung, spleen, and pancreas, belong to vin, while the functional (hollow) organs, small intestine, bladder, stomach, gallbladder, and large intestine, belong to yang. All viscera are located in the interior of the body; the interior of the body, in contrast to the outer layers of the body, belongs to *yin.* This means that *yang* organs can be located in the actual *yin* layer, the interior.

The importance of *yin* and *yang* for use in daily practice is shown in Table **2**. This chart shows that the concepts of *yin* and *yang* can be applied to modern medicine.

For example, in regard to obstetrics, *yang* corresponds to uterine tetany (hyperfrequent labor pains), a rapid birth, and a very restless woman in labor who constantly wants to move. A *yin* condition corresponds to uterine inertia, a protracted course of labor, as well as to a parturient demand of rest and comfort (lying down).

The conditions **repletion** (*shi*) and **vacuity** (*xu*) can be derived from the concepts of *yin* and *yang*. Repletion and vacuity are commonly used terms in acupuncture that describe opposing quantities, a measure for hyperfunction and hypofunction of strength, performance, and body substances.

Repletion, for example, signifies excessive physical and emotional response, organic hyperfunction, increased tissue tension, hemostasis, and lymphostasis. Vacuity, on the other hand, signifies physical

Table 2 Yin and yang in medicine

Yang	Yin
Function	Substance
Locomotor system, skin	Internal organs
Functional organs	Parenchymatous organs
(Hollow organs)	(Solid organs)
Hyperfunction	Hypofunction
Hyper- (excess)	Hypo- (vacuity)
Inflammation	Atrophy
Arthritis	Arthrosis
Extensor surface	Flexor side
Back	Abdomen
Quantity	Quality
Fever (warmth)	Shivering (cold)
Acute	Chronic
Loud	Quiet
Sympathetic nervous sys-	Parasympathetic nervous
tem	system
External	Internal
External musculature	Bones, abdominal cavity
Left half of the body	Right half of the body
Stimulating	Inhibiting
Ergotropic	Trophotropic
Adrenergic	Cholinergic
Good mood	Depressed mood
Strong pulse at the surface	Weak pulse in the interior
Hyperfrequent labor pains	Inertia

and emotional exhaustion, organ hypofunction, tissue atony, and vacuity of blood, tissue fluids, and hormones.

It is crucial that the acupuncture therapist recognizes conditions of vacuity and repletion, because they result in different therapeutic approaches. Sedative treatment techniques are chosen in case of a repletion condition, while an emptiness/vacuity condition calls for tonifying treatments (needle at rest, or moxibustion).

Neglect of these stimulation therapy recommendations or inadequate recognition of repletion and vacuity conditions is a common reason for therapeutic failure.

Table **3** lists indications for repletion and vacuity (repletion and vacuity modalities) based on the example of pain. Repletion and vacuity are easily distinguishable during labor pains. Many pregnant women learn techniques of relaxation massage as part of their birthing classes. Even though most pregnant women find this form of relaxation massage very pleasant during the classes, many patients do not tolerate the stimulation techniques during actual birth. This is an indication of the different en-

Table 3 Pain as repletion and vacuity modalities			
	Fullness	Emptiness	
Pain	No improvement through pressure and/or massage	Improvement with pressure and/or massage	
Warmth	Worsening	Improvement	
Movement	Improvement	Worsening	
Day	Worsening	Improvement	
Night	Improvement	Worsening	

ergy states repletion and vacuity. The pregnant patient in a state of repletion does not experience any improvement through pressure and massage, while pressure and massage can alleviate labor pain in a state of vacuity. Patients with a repletion condition often avert the well-meaning attempt of a partner to relieve some of the pain during birth by using massage and say: "Leave me alone, don't touch me." Patients with a vacuity condition might demand a massage, for example, once the labor pains start.

Repletion and vacuity can also be observed easily in the gynecological treatment of pain (dysmenorrhea). In some patients, warmth considerably alleviates discomfort. Others experience the attempt to use warmth for alleviation of menstrual cramps as unpleasant, or even experience a worsening of symptoms. In regard to vacuity and repletion, cases with the same diagnosis display individual and constitutional reaction patterns. This is thoroughly explained by TCM and has to be observed in therapy. Midwives and obstetricians aim to keep the pregnant women as "mobile" as possible during birth. In contrast to former times, a decreasing number of births are performed lying down. For a patient with a vacuity condition, the constant movement during birth could possibly increase the labor pains. For a patient with a repletion condition, movement usually eases the labor pains.

The Five Fundamental Substances

In TCM, the following terms are described as the five substances:

- *Qi* = Life force, (life) "energy"
- Xue = Blood
- Jing = Essence, that which determines the strength of the constitution
- Jin ye = Body fluids
- Shen = Spirit

The five fundamental substances should not be confused with the five phases!

Qi (Life Force)

Qi is a theoretical model describing processes of life, vitality, energy, and function. According to TCM, *qi* circulates continuously inside the body, the organs and the corresponding regions of the body's surface, the channels, and keeps the circulation going. From a Western perspective, this can be compared best with the biorhythm.

Qi is transported via all the systems known to us (see The Channel System of Acupuncture, p. 36). Blood vessels and the lymphatic system are responsible for the transport of material energy consisting of nutrients, hormones, etc. Part of the information travels via the nervous system, as well as through the interstitial tissue from cell to cell, and via musculature. TCM calls it the circulation of qi and blood, but includes here the information transported via the nervous system without explicitly stating it. The obstruction of qi can result in disease, just like disease and disturbances of the organism can interfere with the circulation of qi.

Acupuncture regulates the flow of *qi*.

The needle insertion and manipulation at the acupuncture point causes the so-called *de qi* sensation, which is central to TCM. It is a dull, aching sensation along the corresponding channel, and is considered a sign that the circulating flow inside the channel has been successfully induced.

Life processes are not possible without the energy of the vital force *qi*, which emanates from the *tao*, the original energy of the universe. It is the life energy that maintains the function of the organism. Several types of *qi* are known (see p. 9).

The complete stagnation of *qi* is equivalent to the death of the organism.

Problems with circulation or blockage of *qi* result in functional disorders and diseases.

Qi connects and nourishes. This theory explains how a vital, functional unity can emerge from the sum of individual parts and functions of the organism. The vital force *qi* is a crucial factor in the traditional Chinese understanding of nature. For a long time, Western science also believed in the existence of such a vital force, until the physicist and physician H. von Helmholtz (1821–1894), after his pioneering discovery of the excitability of nerve cells, pronounced this belief as outdated.

The functions of *qi* are described with the following terms: activity, function, defense, warming, moistening, nourishing, containment, and transformation.

In the human organism, *qi* appears in various forms, just as the term *qi* can be found in a number of different word combinations (e.g., *de qi*, the needle sensation, *tai ji quan*, *qi gong*). The primary forms of *qi* inside the organism are:

Original qi (source qi) (yuan qi). This type of life energy is inherited and exists only in limited quantity. It is consumed during the course of a life. According to the Western medical concept, this would primarily correspond to the hormonal balance, and also to the substance of the adrenal cortex, pituitary gland, and thyroid glands. According to Chinese philosophy, the ability to reproduce also depends to a great extent on the original qi. Man has to be frugal with his original qi because substitution is impossible. The symbol for this is the so-called flame of life, the candle that relentlessly burns down, fast or slow. TCM describes certain ways to preserve this flame, for example, with dietetics. It also includes exercises such as tai ji quan or qi gong that transform energy extracted from breath and food into essential life energy.

The **ancestral or gathering** *qi* (*zhong qi*). The lungs are the transformation center of material energy. In the lungs blood and nourishing *qi* from the air come together. The main function of gathering *qi* is the nourishment of lungs and heart, and the support of their functions to preserve existence. Gathering *qi* regulates breathing, heart, blood vessels, and circulation.

Grain qi, the qi extracted from food, is known as gu qi. Together with the gathering qi, it contributes to the conservation of the original qi. The construction qi or nutritive qi (ying qi) is opposite to the defensive qi (see below). It signifies forming qi or substance, and thus, is rather yin.

Defensive *qi* (*wei qi*) protects against the penetration of pathogenic forces such as cold, wind, heat, etc. from the outside. Other functions are the closing mechanism of the pores and the regulation of body temperature. It is rather *yang*.

Evil or pathogenic *qi* (*xie qi*) comprises the pathogenic factors that attack the body "externally" or "internally." It depends upon the balance between defensive *qi* and pathogenic *qi* whether or not the organism becomes diseased or not.

Right or true qi (*zheng* qi = construction qi + defensive qi). In TCM this is known as the life force as such. It consists of all types of qi, of the original, grain, gathering, and defensive qi. It is the qi in the channels that maintains all functions of the human body. It determines organ functions, blood flow, its own flow, and thus, the overall condition of the individual and its organism.

According to TCM philosophy, the true *qi*, the life force, and the blood circulate through the body, the organs, and the channels in a 24-hour rhythm. An obstruction of this *qi* circulation leads to health impairments and should be remedied with acupuncture. The image of the so-called organ clock developed based on the belief that the vital force *qi* generates periodic processes and functional cycles (Fig. **3**).

This 24-hour rhythm of *qi* circulation through the main channels is comparable to the biorhythm of the organism as known in the West.

Using thorough observation a long time ago, the Chinese acquired the knowledge that is confirmed today through the use of extensive research methods. For example, it is known that asthmatics, or children with lung function disorders (e.g., pseudocroup children), often report of complaints during the night or in the early morning hours, mainly between 3 and 5 AM, which is the period of the lung

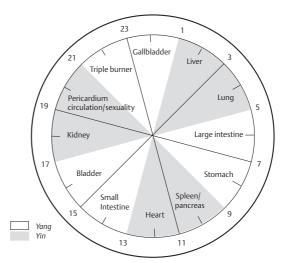


Fig. 3 The organ clock (according to Stiefvater)

function in TCM. Heart attacks occur most frequently before noon. TCM describes the time between 11 AM and 1 PM as the "period of the heart function." Biliary colics are most often observed during the late evening hours. This also matches the observation of TCM, which places the "prime period of the gallbladder function" between 11 PM and 1 AM. The complaints in case of hyperemesis are especially intense in the morning, during the stomach cycle between 7 and 9 AM.

Xue (Blood)

In contrast to *qi*, the "moving agent," *xue* (blood) nourishes. Blood nourishes *qi* and *qi* moves blood. Blood and *qi* are directly connected; one is inconceivable without the other. All parenchymatous organs are involved in the formation and circulation of blood. The "heart" network incorporates the heart function, as well as the function of the circulatory system and its regulation. The "liver" is responsible for the unobstructed flow of blood and serves as a blood reservoir. The "stomach/spleen/pancreas" network provides the "essence," extracted from food, as the material basis for qi and blood. Also, according to TCM, the "spleen" contains blood in the vessels. The "lung" enriches the blood with pure *qi*, the oxygen contained in air. The "kidney" preserves the inherited basis of qi, which in combination with the essence from food forms the material basis for qi and blood.

The functions of blood, according to TCM, are the moistening and nourishing of the skin, muscles, bones, tendons, and internal organs.

Blood and *qi* are also the foundation of mental activity (and disorders are caused by cerebral ischemia). Blood vacuity results in anemia, and thrombosis and endometriosis are amongst the conditions that TCM considers cases of blood stasis. A state of "blood heat" exists during inflammations, skin disorders with red discoloration, and inflammatory bleeding.

Jing (Essence)

Jing is the substance that is the foundation of all organic life. It is the material substance from which *qi* energy is derived. Jing is stored in the kidneys. TCM acknowledges two forms of jing: The prenatal jing, the sum of all inherited dispositions, and the postnatal jing, essence from air and food, which the body is supplied with in order to maintain life. A congenital *jing* vacuity causes deformities and developmental diseases. An acquired *jing* vacuity manifests itself in form of exhaustion, a lack of energy, infantilism, and bone diseases.

Jin Ye (Body Fluids)

Jin ye is the collective term for body fluids such as saliva, digestive fluids, synovial fluids, nasal discharge, urine, sweat, tissue fluids, blood serum, and plasma. Body fluids are produced from digested food. All internal organs are involved in the distribution of body fluids, primarily the spleen, lungs, and kidneys.

The spleen's function is to transform water and moisture; it contributes to optimizing liquid volume in blood vessels and tissue, separates the body fluids into pure and impure, and transports the pure aspect to the lungs. The impure aspect is sent to the intestines. The lungs moisten skin and body hair and send the fluids downward to the kidneys. A deficient lung function leads to pulmonary edema. The kidneys further separate their aspect of the fluids into "pure" and "impure" fluids.

Pure fluids are transported upward to the lungs again; impure fluids are transported downward to the bladder for discharge. The heart is responsible for the transport and circulation of body fluids. The liver regulates the amount and viscosity of the circulating blood. Insufficient circulation of body fluids causes edemas and thrombosis, stagnation, and impairment of the flow of *qi* and blood. A vacuity in body fluids appears in the form of exsiccosis.

Shen (Spirit)

The material basis for the spirit, which only exists in humans, is the consciousness. The power of consciousness, in TCM belief, is located in the heart and is "preserved" there. Accordingly, the heart is synonymous for spirit, brain, and soul. The complete consciousness of the spirit can be seen in the eyes. The term *shen* (spirit) corresponds to the Western concept of mind. A vacuity of spirit leads to listlessness and lack of enthusiasm. A repletion of heat and *qi*, or emotional blockage, leads to overexcitability.

The Five Phase Theory

The five phase theory assumes that all things in this world can be traced back to five basic entities, which are much like the five natural elements known to early man, namely wood, fire, earth, metal, and water.

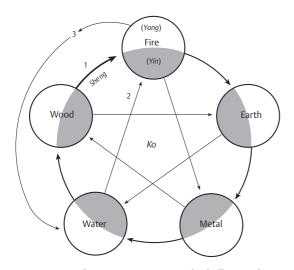


Fig. 4 Engendering, restraining, and rebellion cycle. Three cycles can be derived from the connections between the five phases

All occurrences are associated with the five basic elements. Three cycles are derived from the connections of the five phases (Fig. **4**).

The five phase theory describes nature's ever-recurring process of change, and transfers it to the processes of the organism.

Cycles

- The *sheng cycle* (creative cycle) defines the reciprocal promotion of the five phases. The most important rule, the so-called mother-son rule, can be deduced from that: Each phase promotes (nourishes) the one that follows. For example, "wood nourishes fire."
- 2. The phases control each other in the *ko* cycle (controlling cycle). For example, water exerts control over fire, "water extinguishes fire" (treatment of fever).
- 3. The *wu* cycle (rebellious cycle) shows that the phases consume each other and exert influence on each other. That means, for example, that fire influences water, "fire evaporates water."

The five phase theory can also be used to explain physiological and pathological correlations in modern medicine. The organs and their functions have a promoting and a consuming relationship. TCM deduces the pattern diagnosis and the corresponding therapeutic (acupuncture) concepts from the five phase theory.

Example: Wood controls earth in the controlling cycle. An excess condition in the wood phase leads to a disturbance and a loss of control in the earth phase. Applied to medical practice: An excess condition in the wood phase manifests itself, for example, as distress, aggressiveness, tension, and a tendency toward outbursts of rage. This, in turn, weakens the earth phase. Manifestations of this weakness are symptoms like digestive disorders, stomach complaints, and proneness to gastritis and gastric ulcers. As a therapeutic measure resulting from the five phase theory, earth has to be strengthened and wood has to be calmed. In case of gastritis, with signs of stomach weakness (loss of appetite) and simultaneous liver repletion (sour belching, burning), the stomach, the earth phase, is strengthened, and the liver, the wood phase, is calmed.

TCM deduces the five "most important" channel points on the extremities (**transport points**) from the five phase theory. Correspondences in nature and in the human organism are associated with one of the five phases and are listed in a classification table (Table **4**). The relationships between the five phases should not be taken literally but viewed as abstract symbols, comparable to symbols in algebra, such as a, b, c. Using this system, TCM was able to organize findings (observational and empirical medicine). "What belongs to what and what reacts with what" is the essential statement of the classification within the five phases.

Organ Networks

The sum of all correspondences associated with a phase forms a **network**. Each network assigned to a phase includes the relationship with *yin* or *yang*, or with the appropriate *yin* or *yang* organ. In acupuncture, each network is assigned to a corresponding *yin* or *yang* channel, an "opening" (= sensory organ), a specific tissue, and the "internal" (emotional) and "external" (climatic) factor.

The function of the networks. They are an important means to show the relation between body and soul, above and below, internal and external, as well as between *yin* and *yang*. They also allow easy access to the holistic perspective of TCM and to the diagnosis and therapy of a disorder.

The function of these ancient networks is corroborated by modern biophysical findings. It becomes increasingly obvious that the simple principle of cause and effect, as applied to pathogenesis by traditional medicine, is reaching its limits and that more

Table 4 The five phases and their essential correspondences in humans					
Phase	Water	Wood	Fire	Earth	Metal
Season	Winter	Spring	Summer	Late summer (transition)	Fall
Climatic (external) factor	Cold	Wind, draft	Heat	Dampness	Dryness
Color	Blue, black	Green	Red	Yellow, earth- colored	White, metallic
Flavor	Salty	Sour	Bitter	Sweet	Pungent
Solid organs (<i>zang</i> organs)	Kidney	Liver	Heart, pericardium	Spleen/pancreas	Lung
Hollow organs (fu organs)	Bladder	Gallbladder	Small intestine, triple burner	Stomach	Large intestine
Sensory organs	Ear	Eye	Tongue	Mouth (digestive tract)	Nose (respirato- ry tract)
Stratum layer	Bones	Muscles and ten- dons (function)	Subcutis, vessels	Connective tissue, muscle	Skin
Secretions	Thin secretions (i. e., urine)	Tears	Sweat	Saliva, phlegm	(Nose) mucus
Emotional factors, psyche, "internal factor"	Fear, dread, fright	Anger, stress, aggression	Joy, lust, hectic	Worry, ponder- ing, contempla- tion	Sadness, melan- choly, depres- sion

complex thought and function models are far more enlightening. Various remarkable connections between Western traditional medicine and TCM can be found by simplifying and "westernizing" the network model.

The Most Important Parallels

Organic disorders extend into the corresponding phase, or channel, and are treated from there.

Pathogenic factors (internal factors = emotions; external factors = environmental influences) damage and influence their corresponding phase and organ, and cause organic symptoms that in turn match the pathogenic factors.

Season (epidemiological factor) explains the seasonal increase of specific diseases.

Flavor, aroma: Indicates the flavor of the appropriate medicine and the affected organ. The excessive preference for one flavor points to a disturbance in the corresponding network. Extreme craving for sweets, for example, points to a disturbance in the earth phase (stomach–spleen/pancreas).

Opening: Disorders of a specific network often surface at their opening (sensory organ). For example, irritation of the water phase leads to an impairment of the ear as its opener. In practice, a tendency toward inflammations of the middle ear caused by cold.

Color: Pathognomonic for a specific network. For example, bile-colored, greenish vomiting within the wood network (liver, gallbladder), fire-red heat signs within the fire network (heart/small intestine).

The Phases and Pregnancy

The five phases are also relevant during pregnancy. Each phase of pregnancy is assigned to one phase (Table **5**).

- The phases water (origin) and wood (phase of development) rule during the first and second month. Accordingly, some points of these elements are listed as traditionally contraindicated.
- The third and fourth months are assigned to fire. In cases of exposure to excessive "heat," TCM reports faulty development of the heart during this phase. Contraindicated points during this phase are primarily points of the pericardium, triple burner, heart, and small intestine channels.

- The fifth and sixth months of pregnancy are assigned to the earth phase (stomach-spleen/pancreas). TCM views this period as influential in regard to psychological, social, intellectual, and emotional developments, as well as to inherited constitution. Contraindicated points are primarily points of the stomach and spleen/pancreas channels.
- The metal phase with the corresponding organs lung and large intestine is assigned to the seventh and eighth months of pregnancy. TCM anticipates that a child born before the seventh month will be unable to survive, because the organ assigned to this month, the lung, is not yet fully developed at this time.
- The ninth and tenth months of pregnancy are defined by the water phase (kidney and bladder). In TCM, the kidney provides the life essence.

During each stage of pregnancy, the development of the child is supported by a corresponding phase. If a pregnant woman suffers a disharmony within a phase and the corresponding channel, developmental problems (diseases of the child) in the corresponding organ network of that phase will result. In case of signs of a disorder, TCM applies various measures to ensure the optimal development of the child by balancing the production and flow of *qi*, *jing*, and blood. Thus, Chinese physicians view the treatment of pregnant women as an important contribution to the overall health and development of a child.

months of pregnancy		
1st month	Liver	
2nd month	Gallbladder	
3rd month	Heart/pericardium	
4th month	Small intestine/triple burner	
5th month	Spleen/pancreas	
6th month	Stomach	
7th month	Lung	
8th month	Large intestine	
9th month	Kidney	
10th month	Bladder	

Table 5 Correspondence of the phases to the

The Phases During Labor

- The **wood** phase corresponds to the beginning of birth (onset of labor, opening phase).
- The fire phase is assigned to the downward movement of the child in the birth canal, and the corresponding movement and rotation processes.
- The **earth** phase is associated with integrating the various processes and the condition of the pelvis center.
- The rotation of the child inside the birth canal, and the corresponding level on the pelvic floor, correspond to the **metal** phase. The weepiness often observed during this phase also belongs to the metal classification.
- The expulsion period is characterized by the **water** phase (kidney). This is the crucial phase of "letting go." A common emotional reaction during this phase is: "I don't want to anymore, I can't do it anymore."
- The labor cycle of the five phases closes at the time of delivery, which belongs to the **wood** phase of formation and growth.

Times of the Day

According to TCM, blood and *qi* circulate in a predetermined daily rhythm through the organs (see also Fig. **3**) and channels.

The 24 hours of a day are divided into 12 twohour compartments; each corresponds to the main activity of an organ. In contrast to the division into five networks, this results in six conceptual pairs. Pericardium and triple burner are added to the previously mentioned five network pairs. They belong to the fire network (heart/small intestines), which is the only network that contains two organ pairs.

The Internal Organ Theory (Zang Fu)

The *yin–yang* principle is also applied to the theory of the internal organs. These comprise two groups: *zang* organs (storage/solid organs) and *fu* organs (functional/hollow organs).

The Chinese concept of organs is not limited to the anatomical structure of the organs, as it is in Western medicine, but the Chinese meaning of "organ" is the function of organ systems (networks). The "anatomical" organ plays a secondary role in TCM. For example, the lung network represents the totality of breathing functions including smell, as well as the

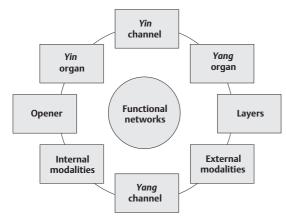


Fig. 5 Structure of TCM networks. Networks—sum of all functional contexts

entire respiratory tract. This illustrates the functional unit of the nose, sinuses, respiratory tract, and lung alveolus.

The organ system is equated with its functional contexts.

The organs are divided into six *yang* organs and six *yin* organs.

According to the traditional concept, the six *zang* (storage) organs have *yin* character and serve the production and storage of the most important life substances, for example the vital force *qi*, blood, and other body fluids. The *zang* organs are:

- Kidney
- Liver
- Heart
- Pericardium
- Spleen/pancreas
- Lung

The six *fu* (functional) organs have *yang* character and serve the intake and digestion of nutrients and their absorption, as well as the transport and the secretion of fiber. The *fu* organs are:

- Stomach
- Urinary bladder
- Gallbladder
- Small intestine
- Triple burner
- Large intestine

The triple burner is called *san jiao* in Chinese, which means "the three that are connected to each other." This refers to the functional unit of the three body cavities thorax, upper abdomen, and urogenital re-

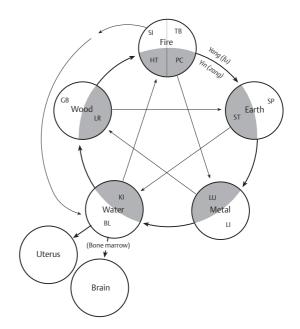


Fig. 6 The Chinese organ theory, deduced from the yinyang and the five phase theory. The uterus and brain are classified as special organs

gion, including the organs located there. The upper part of the triple burner contributes to the heart and lung functions, and ensures the necessary supply of blood and life force *qi* to all the areas of the body. The middle, abdominal part of the triple burner supports the functions of spleen and stomach, which absorb and digest nutriments. The lower part of the triple burner is responsible for the functions of the kidneys and the bladder, and, thus, controls the body's water balance as well as reproduction.

Depending on their systematic affiliation, each *zang fu* organ has a particular relationship to one of the five sensory organs, which means that the organs "open" at the sensory organs. In addition, each organ controls one of the five described tissues (layers).

In addition, there are two "extraordinary organs" acknowledged by TCM: The brain, which in former times was believed to be a special product of the bone marrow (formed by the kidneys), and the uterus, which was regarded as a special organ of the kidneys and the urinary tract. This indicates an interesting correlation to modern embryology.

The Disease Concept of TCM

The Western view of health is described by the WHO definition of the term. This states that health is synonymous with the absence of disease and a state of