

Benchmarks for Training in Nuad Thai

Benchmarks for training
in traditional/complementary
and alternative medicine

Nuad Thai Therapy

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Introduction

Nuad Thai may be regarded as part of the art, science and culture of Thailand, with a history dating back over six hundred years. “Nuad Thai” literally means “therapeutic Thai massage” and it is a branch of Thai traditional medical practice that provides non-medicinal based, manual therapy treatment for certain diseases and symptoms. In Thailand, when Nuad Thai is used for therapeutic or rehabilitative purposes, it is covered by the National Health Security System.

In other countries, Nuad Thai or “Thai massage” frequently refers to a type of Nuad Thai designed for health and relaxation. Such treatments can be found in spas and wellness centres in hotels and resorts all over the world. This type of Nuad Thai for health can also be used for the relief of general body aches and pains. In many areas, Nuad Thai also serves as a more cost effective treatment option for these symptoms, as traditional medicine practitioners are frequently more accessible, and the treatment they offer much less expensive, than imported medicines. The scope of this document will, however, focus only on Nuad Thai and the practice of the Nuad Thai practitioner at the professional level.

As Nuad Thai becomes accepted in other countries around the world, particularly in countries that neighbor Thailand, schools that offer training programmes in Nuad Thai have been established. This has led to concern about the safety and standards of training in Nuad Thai.

In Thailand, attempts have been made to develop the educational standard of Nuad Thai. In 2002 the Ministry of Public Health developed the Nuad Thai (800 hours) curriculum, while the Profession Commission (Thai Traditional Medicine branch) established a Nuad Thai Professional Curriculum in December 2007.

The WHO Consultation on Manual Therapies, held in Milan, Italy, in 2004 concluded that training should be increased to a minimum of 1,000 hours. More intensive training on health sciences and clinical practice should ensure that trainees have enough basic health science knowledge and clinical experience to be able to practice independently and safely. This is in line with the Professional Curriculum of Nuad Thai approved by the Profession Commission in the Branch of Thai Traditional Medicine in December 2007. In this curriculum, a student must take not less than two years to study and gain clinical experience in Nuad Thai before being eligible to undertake the licensing examination.

The resulting document, therefore, provides benchmarks for basic training of practitioners of Nuad Thai; models of training for trainees with different backgrounds; and a review of contraindications, so as to promote safe practice of Nuad Thai and minimize the risk of accidents. Together, these can serve as a reference for national authorities in establishing systems of training, examination and licensure that support the qualified practice of Nuad Thai.

1. Origin and principles of Nuad Thai

Nuad Thai for health and Nuad Thai therapy

Thai traditional massage, known in the Thai language as “Nuad Thai”, is Thailand’s traditional manual therapy. Nuad Thai is defined as “examination, diagnosis and treatment with the intention to prevent disease and promote health using pressure, circular pressure, squeezing, touching, bending, stretching, application of hot compresses, steam baths, traditional medicines, or other procedures of the art of Thai massage, all of which are based on the principles of Thai traditional medicine.” (1)

Nuad Thai is divided into two main types, namely, “Nuad Thai for health” and “Nuad Thai therapy”.

- “**Nuad Thai for health**” is usually applied all over the body to help relax muscle tension. Although Nuad Thai for health can help relieve general body aches and pains, it is intended for relaxation and health promotion rather than for therapeutic purposes. The use of Nuad Thai for health is not considered to be the practice of a healing art. (2,3,4)
- “**Nuad Thai therapy**” is intended to (i) cure or relieve musculoskeletal disorders and painful symptoms in various parts of the body, e.g. myofascial pain syndrome or tension headache, and (ii) prevent or relieve muscle spasm and joint stiffness, e.g. in patients with paralysis, paresis or Parkinson’s disease. This therapy is symptom-oriented Nuad Thai that concentrates on massaging the affected body part and related areas of the body for therapeutic purposes.

This document deals only with “Nuad Thai therapy”, and does not address “Nuad Thai for health”. As part of Thai traditional medicine, Nuad Thai follows the basic principle that the human body is composed of the four elements (*tard*), i.e. earth, water, wind and fire. When the four elements of the body are in equilibrium, the person will be healthy. In contrast, if an imbalance in these elements occurs, i.e. if there is deficit, excess, or a malfunction in any of the four elements, the person will become ill. The wind element represents movement and the flow of energy. The wind and its energy are believed to flow along the “*sen*”, or lines. According to the inscription of massage diagrams at Wat Pho (the Temple of the Reclining Buddha in Thailand) and original traditional textbooks of Nuad Thai, the human body is composed of 72 000 *sen* lines, of which there are ten principal *sen* lines called “*sen sib*” or “*sen prathan sib*”. Both Nuad Thai for health and Nuad Thai therapy are based on the principle of *sen sib*. According to the principles of Thai traditional medicine and *sen sib*, if the flow of energy or wind along *sen* lines is obstructed or becomes stagnant, diseases and symptoms will result. There are several diseases and symptoms that are related to the *sen* lines. Nuad Thai on *sen* lines, and on acupressure points on the *sen* lines, will relieve the obstruction and promote the flow of energy and wind along the *sen*

lines, and is therefore believed to help relieve various diseases and symptoms (5,8).

The origin of Nuad Thai is unclear. Massage has long been important to family health care, thought to go back to the health-care wisdom of Thai ancestors. Historical evidence shows that Nuad Thai was well accepted by the royal court and has been widely used by the Thai people since the Ayutthaya period (1350-1767).

Nuad Thai became a formal body of knowledge during the 19th century. The knowledge of Nuad Thai was first compiled, organized systematically, and codified during the reign of King Rama III (1824-1851). The King ordered the inscription of 60 diagrams of Nuad Thai in order to provide knowledge of Nuad Thai for self-care by the Thai people. These showed *sen* lines and acupressure points on the body along with the explanation of the symptoms or diseases each massage spot could heal.

During the reign of King Rama V (1868-1910), the King ordered the compilation and systematic organization of knowledge about Thai traditional medicine. The *Textbook of medicine, Royal edition*, published in 1906, describes Nuad Thai. From the reign of King Rama VI (1910-1925) onwards (5), however, the role of Thai traditional medicine and massage began to decline, as the role of allopathic medicine increased following its introduction in Thailand during the late 19th and early 20th centuries. In the latter part of the 20th century the first school of applied Thai traditional medicine initiated the teaching of royal massage (*Nuad Rajasamnak*) as the manual therapy part of the three-year curriculum of applied Thai traditional medicine (6). Its royal massage curriculum was later adopted as a form of Nuad Thai by the National Institute of Thai Traditional Medicine within the Ministry of Public Health, and thereafter by some other colleges and universities. Meanwhile, nongovernmental organizations also played a role in reviving Thai massage. They provided training courses for the public and promoted its use in primary health care, specifically in reducing the need for various pain medications (5).

The 1990s saw an increased interest in Thai traditional medicine within the Ministry of Public Health of Thailand, and the establishment of the National Institute of Thai Traditional Medicine in 1993. The Institute reviewed and systematically described the styles of Nuad Thai taught at different schools and began to create the regulations and standards for Nuad Thai and the Nuad Thai curricula for the Ministry of Public Health of Thailand.

At the turn of the millennium, increasing public and private sector demand for qualified Nuad Thai practitioners led the Thai Ministry of Public Health to issue a Ministerial Regulation on 1 February 2001, officially making Nuad Thai a branch of Thai traditional medicine. The registration and licensing of practitioners, and the conditions and regulation of practice, are in accordance with the Practice of the Art of Healing Act, B.E. 2542 (1999) (1).

Thai traditional medicine is today incorporated into the health system of Thailand and Nuad Thai and the application of *luk prakob* (hot herbal compresses) are covered by the National Health Security System (7). At present, Thai people have easier access than ever before to Nuad Thai, as most public health-care facilities provide Nuad Thai.

2. Training of Nuad Thai practitioners

Regulating the practice of Nuad Thai and preventing practice by unqualified practitioners requires a proper system of training, examination and licensing. Benchmarks for training have to take into consideration the following:

- content of the training;
- method of the training;
- to whom the training is to be provided and by whom;
- the roles and responsibilities of the future practitioner;
- the level of education required in order to undertake training.

Nuad Thai experts distinguish three types of Tuina training in function of prior training and clinical experience of trainees.

Type I training programmes are aimed at those who have completed high-school education or equivalent, but have no prior medical or other health-care training or experience. These trainees are required to study the full Nuad Thai programme. This is typically a full-time or equivalent training of a minimum of 1000 hours.

Type II training programmes are aimed at those with medical or other health-care training who wish to become recognized Nuad Thai practitioners. These programmes can be shorter if trainees have already covered some of the components in their earlier health-care training and experience. A typical programme will last approximately 800 hours.

Type III training programmes are limited programmes providing upgrading and qualification for existing Nuad Thai practitioners who have had previous training and work experience in Nuad Thai, but who have not yet received formal full Nuad Thai training.

Upon completion of the programmes, all students must meet the minimum competency requirements for Nuad Thai practitioners described in the sample Type I training programme.

3. Benchmark training curriculum for Nuad Thai

Practitioners, experts and regulators of Nuad Thai consider the typical Type I programme as the relevant benchmark. This is a 1000 hours (minimum) training programme for those who have completed at least high-school education or equivalent, but have no prior health-care training or experience. On completion of this training programme, Nuad Thai practitioners will be able to practise as primary-contact health-care practitioners, either independently or as members of health-care teams in various settings. A typical applicant will have completed at least high-school education or equivalent, with appropriate training in basic sciences.

Learning outcomes of a Type I programme

The Type I programme is intended to equip trainees for professional treatment of some commonly found painful symptoms or diseases of the musculoskeletal system, and prevention of complications of certain diseases exhibiting musculoskeletal symptoms. The curriculum is typically structured to provide the trainee with:

- a basic knowledge of health sciences related to Nuad Thai, including anatomy, physiology and pharmacology, with a focus on the neuromusculoskeletal and circulatory systems;
- a basic understanding of common clinical conditions of the neuromusculoskeletal system;
- a basic knowledge of Thai traditional medicine, with a focus on Nuad Thai, *sen prathan sib*, the *sen* pressure points related to each line, and the four elements, especially wind-related disorders;
- skill and expertise in Nuad Thai techniques ;
- the ability to decide whether the patient may safely and suitably be treated with Nuad Thai, or should be referred to another health professional or health-care facility;
- the capacity to identify contraindications to Nuad Thai or the need for particular precautions ;
- communication skills to interact with patients and their relatives, fellow practitioners, other health-care professionals and the general public;
- a high standard of professional ethics and the ability to follow a code of professional conduct.

Health science components

The health science components of a typical Type I Nuad Thai programme includes:

- basic anatomy;
- basic physiology;
- basic pharmacology;
- basic psychology;

- basic clinical sciences;
- basic musculoskeletal disorders;
- basic examination and assessment of the musculoskeletal system;
- evaluation of painful symptoms;
- first aid.

Thai traditional medicine component

The Thai traditional medicine component of a typical Type I Nuad Thai programme includes:

- Thai traditional medicine philosophy;
- theories of Thai traditional medicine;
- history of Thai traditional medicine and the four elements;
- theory of causes of disease as related to seasons, age, time, place, symptoms and behaviour;
- basic Thai traditional pharmacy, specifically commonly used herbal medicines for bone, tendon and muscle disorders, herbal baths, and herbal compresses;
- basic Thai traditional medicine diagnosis and treatment composed of preliminary diagnosis, characteristics of the four elements, and herbal medicines suitable for each element, disease and symptom.

Nuad Thai component

The Nuad Thai component of a typical Type I Nuad Thai programme includes:

- history, body of knowledge and application of Nuad Thai;
- health benefits, values and various styles of Nuad Thai, and its use in the health-care system;
- the ten principal *sen* lines and their structure, energy flow and characteristics as well as their relationship to disease, the *sen* pressure points for treating various ailments, the types of *sen* pressure points on *sen* lines, the use of the beginning points of *sen sib* for Nuad Thai;
- principles, procedures, potential benefits, contraindications and methods of basic Nuad Thai for application on the back, outer and inner leg, shoulder and head;
- application of Nuad Thai in the treatment of various symptoms and diseases;
- examination and diagnosis of energy lines and wind-related disorders based on the *sen sib* theory;
- causes of symptoms and diseases and Nuad Thai for the treatment of various conditions;
- Nuad Thai for rehabilitation of various disabilities in different age groups and for the restoration of various functions;
- Nuad Thai for the feet including the use of reflexive points on the foot to treat diseases and their affect on the function of various organs;
- Nuad Thai techniques for health promotion and enhancement of physical fitness of athletes and treatment of patients suffering from sports injuries;
- Nuad Thai for antenatal, postnatal and child care, including disorders of mother and child before and after delivery as well as use of Nuad Thai for maternal care;

- use of oils for the treatment of inflammation, muscle sprains and tendinitis, procedures and benefits of aromatherapy, and the extraction of essential oils from herbs;
- meaning, concept and classification of Thai *spaya* and the role of Nuad Thai in Thai *spaya*;
- philosophy, concepts and practice of basic meditation;
- procedures, benefits and precautions of *ruesi dud ton* (Thai traditional stretching exercises).

Law/ethics, social sciences, clinical record-keeping

A typical Type I Nuad Thai programme also addresses:

- professional regulations;
- national health system;
- clinical record-keeping;
- practice management;
- activities to promote teamwork;
- principles of communication;
- cultural sensitivity;
- professional ethics;
- art of service.

Clinical training

In a typical Type I Nuad Thai programme each student practices Nuad Thai under supervision at field sites in at least 100 cases of specific symptoms and diseases. These cases include all of the following symptoms/conditions:

- patients with pain in the head area;
- patients with pain or sprains in the neck;
- patients with pain, stiffness or numbness in the shoulder or scapula;
- patients with pain or sprains in the arm, elbow, wrist or hand;
- patients with pain, sprains or numbness in the back, waist, sides of the torso or abdomen;
- patients with pain, stiffness or sprains in the hip joint, hip area or lower back;
- patients with pain, sprains, stiffness or numbness in the knee;
- patients with pain, sprains, stiffness or numbness in the leg, ankle or feet;
- paralysed or paretic patients;
- women before and after childbirth.

Table 1 - Indicative curriculum for Type I training programme

Subject	Number of teacher-student contact hours		
	Theory	Practice	Total
Health sciences (152 hours)			
1. Basic anatomy	24		24
2. Basic physiology	24		24
3. Basic pharmacology	6		6
4. Basic clinical sciences	36		36
5. Basic psychology	6		6
6. Basic musculoskeletal disorders	20		20
7. Examination of musculoskeletal disorders	6	12	18
8. Evaluation of painful symptoms	6		6
9. First aid	6	6	12
Thai traditional medicine (60 hours)			
1. Thai traditional medicine philosophy	6		6
2. Theories of Thai traditional medicine	12		12
3. Basic Thai traditional pharmacy	20	10	30
4. Basic Thai traditional medicine diagnosis and treatment	12		12
Nuad Thai (316 hours)			
1. History, body of knowledge and application of Nuad Thai	4		4
2. Ten principal sen lines and their relationship to diseases	3	9	12
3. Principles of Nuad Thai		24	24
4. Diagnosis of energy lines and wind-related diseases		18	18
5. Nuad Thai 1		18	18
6. Nuad Thai 2		48	48
7. Nuad Thai for rehabilitation 1		12	12
8. Nuad Thai for rehabilitation 2		12	12
9. Therapeutic foot massage	4	10	14
10. Nuad Thai for athletes		24	24
11. Nuad Thai for antenatal, postnatal and child care		24	24
12. Oil massage treatment	3	24	27
13. Nuad Thai for health		24	24
14. Foot massage for health	3	15	18
15. Spa treatment	3		3
16. Meditation		10	10
17. <i>Ruesi dud ton</i>		24	24
Law/ethics, social sciences, clinical record-keeping (72 hours)			
1. Professional regulations	12		12
2. National health system	3		3
3. Clinical record-keeping		30	30
4. Practice management	3		3
5. Activities to promote teamwork	3	3	6
6. Principles of communication	6		6
7. Cultural sensitivity	6		6
8. Professional ethics	3		3
9. Art of service	3		3
Clinical practice training (400 hours)			
TOTAL	243	757	1000

Table 2 - Indicative curriculum for Type III training programmes

Subject	Number of hours		
	Theory	Practice	Total
Health sciences (152 hours)			
1. Basic anatomy	24		24
2. Basic physiology	24		24
3. Basic pharmacology	6		6
4. Basic clinical sciences	36		36
5. Basic psychology	6		6
6. Basic musculoskeletal disorders	20		20
7. Examination of musculoskeletal disorders	6	12	18
8. Evaluation of painful symptoms	6		6
9. First aid	6	6	12
Thai traditional medicine (18 hours)			
1. Thai traditional medicine philosophy	6	-	6
2. Basic Thai traditional medicine	12	-	12
Nuad Thai (209 hours)			
1. Physical examination and diagnosis of “ <i>sen</i> ” lines and “ <i>wind</i> ”-related disorders; acupressure points and signals – technical level	-	18	18
2. Nuad Thai		60	60
3. Nuad Thai for rehabilitation		30	30
4. Nuad Thai for athletes		30	30
5. Nuad Thai for antenatal, postnatal and child care		30	30
6. Oil massage treatment	3	24	27
7. Therapeutic foot massage	4	10	14
Law/ethics, social sciences, clinical record-keeping (54 hours)			
1. Professional regulations	12		12
2. Clinical record-keeping		12	12
3. Spa treatment	3		3
4. Practice management	3		3
5. Activities to promote teamwork	3	3	6
6. Principles of communication	6		6
7. Cultural sensitivity	6		6
8. Professional ethics	3		3
9. Art of service	3		3
Fieldwork at field sites involving at least 100 cases	-	200	200
TOTAL	201	432	633

Type II training programmes are intended for health-care practitioners who wish to practise Nuad Thai. Type II courses should be referred to the Type I training programme, but the conventional health sciences subjects can be waived.

The Type III training programme is a limited training programme for existing Nuad Thai providers who have had previous training and work experience in Nuad Thai, either Nuad Thai for health or basic Nuad Thai, but who have not yet received full Nuad Thai training. This course is intended to enable existing Nuad Thai practitioners to upgrade their training to formal qualification for the practice of Nuad Thai. The course content and length of Type III training programmes may vary greatly depending upon the applicant's previous training and experience. It is generally thought that 600 hours with the primary focus on basic health science and theory are a minimum to establish results similar to those of a Type I programme.

4. Safety issues

Nuad Thai experts and practitioners consider it important, in order to increase safety and decrease the risk of adverse effects that might occur in patients after Nuad Thai, that all practitioners, including other traditional medicine practitioners, medical doctors and other health-care professionals, should examine and screen patients for any contraindications before treating them or referring them for Nuad Thai (9).

4.1 Precautions and contraindications

Nuad Thai practitioners consider that Nuad Thai is contraindicated if the patient has any of the following conditions (9):

- sharp pain, numbness, tingling, or weakness along the arms or the legs which might indicate acute herniated disc;
- fever over 38.5°C;
- hypertension with systolic blood pressure above 160 mmHg and/or diastolic blood pressure above 100 mmHg combined with syncope, tachycardia, headache, nausea or vomiting;
- recent (less than 1 month) surgery;
- severe osteoporosis;
- communicable diseases, especially airborne types, e.g. influenza, tuberculosis.

Massage in the hypogastric region is contraindicated for pregnant women with morning sickness, watery or bloody vaginal discharge or severe oedema of the extremities, or if the movement of the baby decreases for more than 24 hours. Nuad Thai is also contraindicated in areas of the body that have the following problems:

- fresh wounds, open wounds or recent injury;
- vascular problems, e.g. varicoses, thrombosis, ulceration, atherosclerotic plaque, aneurysm;
- serious joint or bone problems, e.g. broken bone, dislocation, severe osteoporosis, multiple myeloma, ankylosing spondylitis, rheumatoid arthritis with joint deformity or deviation;
- skin diseases or dermal infections, e.g. cellulitis, chronic wounds, herpes simplex, herpes zoster, tinea;
- deep vein thrombosis (10);
- burns;
- inflammation;
- cancer.

Nuad Thai practitioners also call for caution in:

- patients with vascular disease, e.g. aneurysm, vasculitis, atherosclerosis;

- hypertensive patients with systolic blood pressure over 160 mmHg and/or diastolic blood pressure over 100 mmHg not combined with syncope, tachycardia, headache, nausea or vomiting;
- patients with osteoporosis;
- patients with abnormal blood clotting or excessive bleeding who are taking thrombolytic agents;
- joint dislocation;
- areas of the body where metal pins, steel plates, screws or prosthetic points have been inserted;
- areas where wounds are not completely healed;
- broken skin;
- skin grafts.

4.2 Accidents and adverse reactions

Generally, Nuad Thai is considered a safe manual therapy; however, some patients may experience minor adverse reactions, especially those who are receiving Nuad Thai for the first time and are not accustomed to the application of pressure on the trigger points to relieve myofascial pain syndrome. Adverse reactions may also occur if too much pressure is applied. Potential adverse reactions may include soreness, bruising, mild inflammation, or subcutaneous haemorrhage. Other reported adverse effects are said to include dizziness, vertigo or early or heavier menstruation.

Moderate adverse effects are said to be more frequent if practitioners lack experience, knowledge or skill, apply too much pressure, massage the wrong spot, or work on areas that are contraindicated. These moderate adverse reactions may include weakness and/or numbness in the extremities, fainting or cardiac arrhythmia due to pressure on the large arteries of the neck, oedema, severe soreness or inflammation. Moderate adverse effects reportedly may result in a need for the patient to seek medical attention (9).

Severe adverse reactions and accidents may happen if the wrong techniques are used, especially by inexperienced practitioners, or if Nuad Thai is applied to contraindicated areas of the body or in contraindicated cases. These severe adverse effects may include injured nerves, disc herniations, compressed spinal nerves, ischaemia of the brain or the heart, tearing of blood vessels, aneurysm of blood vessels, rupture of lymphatic vessels, or tearing of the intestine. These adverse reactions require immediate medical attention and hospitalization (9).

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