



## **SOTHIDA NANTAKOOL, PT, PhD**

### **Lecturer**

Department of Physical Therapy,  
Faculty of Associated Medical Sciences,  
Chiang Mai University, Chiang Mai, Thailand



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### **QUALIFICATIONS**

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| 2021 | Postdoctoral Fellowship, granted by Chiang Mai University Presidential Scholarship, Chiang Mai University, Thailand |
| 2020 | Doctor of Philosophy in Biomedical Science (International Program), Chiang Mai University, Thailand                 |
| 2017 | Master of Science in Sports Science, Mahidol University, Thailand   |
| 2013 | Bachelor of Science in Physical Therapy, Chiang Mai University, Thailand  |

### **PERSONAL STATEMENT**

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Sothida Nantakool has been a lecturer at the Department of Physical Therapy, Faculty of Associated Medical Sciences, Chiang Mai University since 2024. She previously had experience in a position of a researcher in non-communicable disease unit, Research Institute for Health Sciences, Chiang Mai University, Thailand for 2 years.

Sothida currently teaches courses relevant to physical therapy in geriatrics and community, exercise, and clinical practice for undergraduate physical therapy students. She has extended a role responsible for research supervising for the undergraduate student. Her research interests focus on physical therapy management of obesity, sarcopenia, cardiopulmonary conditions, and mobility in older adults. Regarding the research context, she has held the role of principal investigator and achieved several grants from government funding sources. Additionally, she has contributed as a co-principal investigator on projects funded by national and international sources. These experiences have facilitated productive collaborations with researchers at both national and international levels.

## **POSITIONS**

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- 2024-present Lecturer, Department of Physical Therapy, Faculty of Associated Medical Sciences, Chiang Mai University, Thailand
- 2021-2024 Researcher, Research Center for Non-Infectious Diseases and Environmental Health, Research Institute for Health Sciences, Chiang Mai University, Thailand
- 2021-present Fitness Performance Enhancer, Thaicycling Association, Thailand
- 2021 Postdoctoral Researcher, Research Institute for Health Sciences, Chiang Mai University, Thailand

## **EXPERIENCES**

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- 2024 Short visitor talk in a topic of whole-body vibration therapy, Department of Exercise Sciences, the University of Auckland, New Zealand
- 2023 Speaker in a topic of exercise after AVF: isotonic vs isometric exercise, Department of Vascular Surgery, Faculty of Medicine, Chiang Mai University
- 2022 Speaker (workshops) in a topic of first aid and basic life support, Department of Radiology, Faculty of Associated Medical Sciences, Chiang Mai University, Thailand
- 2022 Speaker in a topic of health promotion exercise for working ages
- 2022 Speaker (workshops) in a topic of cardiopulmonary resuscitation (CPR), Sports Science Field, Graduate School, Chiang Mai University, Thailand
- 2022 Speaker in a topic of peripheral artery disease (PAD) under corporate social responsibility (CSR) project
- 2022 Speaker in a topic of tips and tricks for postgraduate, Department of Physical Therapy, Faculty of Associated Medical Sciences, Chiang Mai University, Thailand
- 2022 Speaker in a topic of health promotion and cardiopulmonary resuscitation (CPR), Chiang Mai City Municipality, Chiang Mai, Thailand

2022 Special lecturer in a topic of Rehabilitation in the Elderly with Comorbidity or Chronic Disease: Kidney Disease, Faculty of Physical Therapy and Sport Medicine, Rangsit University, Pathumthani, Thailand

### **SHORT COURSE TRAINING/ CONFERENCES**

2023 Advanced Cardiac Prevention and Rehabilitation Training Program, The Heart Association of Thailand under the Royal Patronage of H.M. the King, Bangkok, Thailand

2023 Pulmonary function test (Spirometry), Thoracic Society of Thailand under Royal Patronage, Bangkok, Thailand

2021 Course of Diploma in Clinical Epidemiology, Center for Clinical Epidemiology and Clinical Statistics, Faculty of Faculty of Medicine, Chiang Mai University, Thailand

2021 Course of Systematic Reviews, Research Administration Section, Faculty of Medicine, Chiang Mai University, Thailand

2021 Course of Systematic Review and Evidence-Synthesis with Stata, Center for Clinical Epidemiology and Clinical Statistics, Faculty of Medicine, Chiang Mai University, Thailand

2021 Course of GCP online training (Computer based), Clinical Research Unit, Faculty of Medicine, Thammasat University, Thailand

2020 Course of On-Line Research Ethics Training, National Research Council of Thailand (NRCT) and Forum for Ethical Review Committee in Thailand (FERCIT)

2020 Course of Training in Sample Size, Program for HIV Prevention and Treatment (PHPT), Thailand

2018 The International Conference on Rehabilitation Science, Hong Kong Polytechnic University, Hong Kong

2017 The International Conference on Falls in Older People, Chiang Mai, Thailand

2017 Conference of Movement during Dialysis for Health and Well-Being,  
Mahidol University, Thailand

## **RESEARCH INTERESTS**

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- Physical therapy in older adults
- Obesity and sarcopenia
- Cardiopulmonary conditions and mobility
- Physical activity
- Exercise and rehab innovation

## **MEMBERSHIPS**

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- Thailand Physical Therapy Council
- Physical Therapy Association

## **AWARD AND RECOGNITION**

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- Outstanding Researcher Award (Highest Impact Factor), Research Institute for Health Sciences, Chiang Mai University, Chiang Mai, Thailand (2022)

## **PUBLICATION (peer-reviewed)**

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### ***International publications***

Phirom K, **Nantakool S**, Chuatrakoon B, Rerkasem K. Role of obesity-related anthropometric indicators on cognitive function in obese older adults: A systematic review and meta-analysis. *Public Health*. 2025;241:60-68. doi: 10.1016/j.puhe.2025.01.040. (**Corresponding author**) (Q1, IF 3.9)

**Nantakool S**, Chuatrakoon B, Sittichoke C, Konghakote S, Rerkasem K, Buranapin S, Kanlayanee S, Pothaya N, Kidarn J. A comparison of walking performance between individuals with and without asymptomatic peripheral artery disease using the six-minute walk test and the incremental shuttle walk test. *Sci Prog*. 2024 107(4):368504241305822. doi: 10.1177/00368504241305822 (Q1, IF 2.6)

- Nantakool S**, Sa-Nguanmoo P, Konghakote S, Chuatrakoon B. Effects of Exercise Rehabilitation on Cardiorespiratory Fitness in Long-COVID-19 Survivors: A Meta-Analysis. *J Clin Med*. 2024;13(12):3621. doi: 10.3390/jcm13123621 (Q1, IF 3.0)
- Nantakool S**, Punturee K, Konghakote S, Sitthichoke C, Phirom K, Chuatrakoon B. Immediate Effects of Aerobic Exercise and Whole-Body Vibration on Fat Oxidation, Lipid Mobilization, and Cardiovascular Response in Individuals with Obesity. *J Clin Med*. 2024;13(1):44. doi: 10.3390/jcm13010044 (Q1, IF 3.9)
- Chuatrakoon B, Konghakote S, Sa-nguanmoo P, **Nantakool S**. Long-term impact of SARS-CoV-2 infection on cardiorespiratory fitness: a meta-analysis. *Front. Public Health*. 2023;11:1215486. doi: 10.3389/fpubh.2023.1215486 (**Corresponding author**) (Q1, IF 5.2)
- Nantakool S**, Chuatrakoon B, Orrapin S, Leung R, Howard DPJ, Rerkasem A, Derraik JGB, Rerkasem K. Influences of age and gender on operative risks following carotid endarterectomy: A systematic review and meta-analysis. *PLoS One*. 2023;18(5):e0285540. doi: 10.1371/journal.pone.0285540. (Q1, IF 3.7)
- Rerkasem A, **Nantakool S**, Kulprachakarn K, Rojawat C, Ounjaijean S, Pongtam S, Prasannarong M, Saengyo S, Jakkaew T, Rerkasem K. The Effect of Standard Compression Adjuvant with a Tailored Exercise Training Program on Health-Related Quality of Life Outcomes in Treating Adults with Venous Leg Ulcer: A Randomized Controlled Trial. *Int J Low Extrem Wounds*. 2023;15347346231172566. doi: 10.1177/15347346231172566. (Q3, IF 2.057)
- Rerkasem A, **Nantakool S**, Wilson BC, Mangklabruks A, Boonyapranai K, Mutirangura A, Derraik JGB, Rerkasem K. Associations between maternal plasma zinc concentrations in late pregnancy and LINE-1 and Alu methylation loci in the young adult offspring. *PLoS One*. 2022;17(12):e0279630. doi: 10.1371/journal.pone.0279630. (Q1, IF 3.752)
- Nantakool S**, Reanpang T, Prasannarong M, Pongtam S, Rerkasem K. Upper limb exercise for arteriovenous fistula maturation in people requiring permanent haemodialysis access. *Cochrane Database Syst Rev*. 2022;10(10):CD013327. doi: 10.1002/14651858.CD013327.pub2. (Q1, IF 11.874)

- Rerkasem A, **Nantakool S**, Orrapin S, Rothwell PM, Howard DPJ, Rerkasem K. Local versus general anaesthesia for carotid endarterectomy: Cochrane review. *Stroke*. 2022;53(7):e267-8. (Q1, IF 10.170)
- Chuatrakoon B, **Nantakool S**, Rerkasem A, Orrapin S, Howard DP, Rerkasem K. Routine or selective carotid artery shunting for carotid endarterectomy (and different methods of monitoring in selective shunting). *Cochrane Database Syst Rev*. 2022;6(6):CD000190. doi: 10.1002/14651858.CD000190.pub4 (Q1, IF 11.874)
- Kulprachakarn K, **Nantakool S**, Rojawat C, Ounjaijean S, Pongtam S, Prasannarong M, Rerkasem K. Effectiveness of combined conventional treatment with a tailored exercise training program on wound healing in patients with venous leg ulcer: a randomized controlled trial. *J Tissue Viability*. 2022;32(1):190-96. (**Shared first authorship**) (Q1, IF 2.932)
- Rerkasem A, Tangmunkongvorakul A, Aurpibul L, Sripan P, Parklak W, **Nantakool S**, Srithanaviboonchai K, Rerkasem K. Association of cardio-ankle vascular index and future major adverse cardiovascular events in older adults living with HIV. *AIDS Care*. 2022:1-9. doi: 10.1080/09540121.2022.2029820. (Q1, IF 2.095)
- Rerkasem A, Nopparatkailas R, **Nantakool S**, Rerkasem R, Chansakaow C, Apichartpiyakul P, Phrommintikul A, Rerkasem K. The Ability of Clinical Decision Rules to Detect Peripheral Arterial Disease: A Narrative Review. *Int J Low Extrem Wounds*. 2022:15347346221104590. doi: 10.1177/15347346221104590. (Q3, IF 2.057)
- Nantakool S**, Rerkasem K, Srisuwan T, Reanpang T, Prasannarong M. A randomized controlled trial of the effect of postoperative hand exercise training on arteriovenous fistula maturation in patients with chronic kidney disease. *J Vasc Surg*. 2022;75(1):230-37. (Q1, IF 4.268)
- Nantakool S**, Prasannarong M, Srisuwan T, Reanpang T, Apichartpiyakul P, Rerkasem K. Agreement between physical and ultrasound examination for arteriovenous fistula maturation diagnostics in Thai patients with hemodialysis. *J Vasc Access*. 2022;23(1):123-127. (Q2, IF 2.283)

Rerkasem A, Orrapin S, Howard DPJ, **Nantakool S**, Rerkasem K. Local versus general anaesthesia for carotid endarterectomy. *Cochrane Database Syst Rev.* 2021;10:CD000126. doi: 10.1002/14651858.CD000126.pub5. (Q1, IF 9.266)

**Nantakool S**, Chuatrakoon B, der Veen MV, Rerkasem A, Rerkasem K. Exercise training as an adjunctive therapy for chronic venous insufficiency patients: evidence from research to practice. *Int J Low Extrem Wounds.* 2021;15347346211060126 (Q3, IF 2.057)

**Nantakool S**, Rerkasem K, Reanpang T, Worraphan S, Prasannarong M. A systematic review with meta-analysis of the effects of arm-exercise training programs on arteriovenous fistula maturation among people with chronic kidney disease. *Hemodial Int.* 2020;24(4):439-53. (Q2, IF 1.812)

### ***National publications***

Intanon S, Khamwong P, **Nantakool S**. A preliminary study of myofascial release technique effect on the range of hip flexion, knee flexion, and ankle dorsiflexion motion at affected lower extremity in individuals with chronic stroke. *JAMS.* 2021;54(2):29-34. (TCI 1)

**Nantakool S**, Chaunchaiyakul R, Pinthong M, Kongkum S. Effect of sports drink on repeated performance in healthy Thai males after glycogen depletion. *J Sports Sci Tech.* 2017;17:83-93. (TCI 1)

## **PRESENTATION**

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### **Oral Presentation**

2023 Walking performance using the six-minute walk test and the incremental shuttle walk test in individuals with peripheral artery disease: preliminary evidence. *13<sup>th</sup> Pan-Pacific Conference on Rehabilitation, Chiang Mai, Thailand*

2019 Effect of post-operative exercise training on arteriovenous fistula maturation in chronic kidney disease patients: a preliminary study. *The 11<sup>th</sup> International Graduate Students Conference on Population and Public Health Sciences (IGSCPP), Chulalongkorn University, Thailand.*

## **MANUSCRIPT REVIEWERS**

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### **International Reviewers**

#### ***BioMed Research International***

- Menstrual Abnormality, Maternal Illiteracy and Household Factors as Main Predictors of Anemia among Adolescent Girls in Ethiopia: Systematic Review and Meta-Analysis

#### ***The International Journal of Lower Extremity Wounds***

- Immediate effects of weight-bearing calf stretching on ankle dorsiflexion range of motion and plantar pressure during gait in patients with diabetes mellitus
- Fish skin grafting: Is it a boon for diabetic foot ulcers?
- Association between the diabetes mellitus duration and the severity of diabetic foot disease in hospitalized patients in Latin America
- Effect of matrix metalloproteinases on the healing of diabetic foot ulcer: a systematic review
- Efficacy of belt electrode skeletal muscle electrical stimulation in the postoperative rest period in patients with diabetes who have undergone minor amputations: a randomized controlled trial
- A bibliometric analysis of scientific publications on the surgical treatment of diabetic foot
- A-Heal® in the management of chronic non healing ulcers. A case series
- Combination therapy of triceps surae stretching and electrical stimulation to the tibialis anterior in patients with diabetes mellitus decreases medial forefoot plantar pressure during gait by modulating abnormal gaiting patterns
- Effect of the educational intervention on the balance of diabetic foot amputees: a randomized controlled study
- Role of adipose derived stem cells in patients with diabetic foot ulcers: systematic review and meta-analysis of randomised controlled trials

### **National Reviewers**

## ***Archives of Allied Health Sciences***

- Thermoregulatory and cardiovascular changes after cold water immersion (CWI) as pre-cooling in amateur young adult mini-marathon runners

## **RESEARCH GRANTS**

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### **Principal Investigator (PI)**

Project title:           Cardiorespiratory fitness and cognitive performance in older adults with sarcopenic obesity

Investigator status: Principal Investigator (PI)

Year:                     2024

Funding source:       Associated Medical Sciences, Chiang Mai University, Thailand

Total costs:           ฿80,000

Project title:           Assessment and Management of Risk-benefit Relationship between PM2.5 Exposure and Physical Activity on Metabolic Syndrome in Northern of Thailand

Investigator status: Principal Investigator (PI)

Year:                     2023

Funding source:       Grant for PM2.5 and other Pollutants Related NCDs from Field-to-Cell-to-Bedside (FCB), Chiang Mai University, Thailand

Total costs:           ฿700,000

Project title:           Role of obesity indicators and exercise on cognition and the development of the physical game-based training program on cognition in obese older adults

Investigator status: Sub-Principal Investigator (Sub-PI)

Year:                     2023-2025

Funding source:       Grant for Frontiers/ Targeted Research Postmaster, Chiang Mai University, Thailand

Total costs:           ฿945,000

Project title:           Nutritional values and changes on blood glucose insulin and satiety index of Lishu white rice consumption

Investigator status: Principal Investigator (PI)  
Year: 2022  
Funding source: Grant under the establishment project of Glycemic Index Center (GI center), Food Innovation and Packaging Center (FIN), Chiang Mai University, Thailand  
Total costs: ฿867,300 (*Matching fund: Nutrition Promotion Foundation for ฿475,800*)

Project title: Immediate effect of aerobic exercise and whole-body vibration on fat mobilization, fat oxidation, and cardiovascular changes in individuals with obesity

Investigator status: Principal Investigator (PI)  
Year: 2022  
Funding source: Grant for Junior Researcher, Chiang Mai University, Thailand  
Total costs: ฿100,000

### **Co- Principal Investigator (Co-PI)**

Project title: An innovative screening tool and whole-body vibration exercise program for type 2 diabetes mellitus patients with peripheral artery disease

Investigator status: Co-Principal Investigator (Co-PI)  
Year: 2024  
Funding source: Fundamental Fund, Thailand  
Total costs: ฿700,000

Project title: Skill development for frailty assessment and outcomes of a multicomponent exercise training program in Village Health Volunteers, Doi Lo Subdistrict, Chiang Mai Province

Investigator status: Co-Principal Investigator (Co-PI)  
Year: 2024  
Funding source: Associated Medical Sciences, Chiang Mai University, Thailand  
Total costs: ฿100,000

Project title: A project of community network for behavioral adjustment to prevent cardiovascular disease in Mae Ka Subdistrict and Doi Lo Subdistrict, Chiang Mai Province

Investigator status: Co-Principal Investigator (Co-PI)

Year: 2023

Funding source: Grant for Societal Engagement, Chiang Mai University, Thailand

Total costs: ฿100,000

Project title: Assessment of walking performance in individuals with and without peripheral artery disease

Investigator status: Co-Principal Investigator (Co-PI)

Year: 2023

Funding source: Grant for Research, Faculty of Associated Medical Sciences, Chiang Mai University, Thailand

Total costs: ฿80,000

Project title: PM2.5 Impacts on Health: Occurrence to Sustainable Outcomes for the Northern Thai Population (Project PHOON)

Investigator status: Co-Principal Investigator (Co-PI)

Year: 2023

Funding source: Grant for PM2.5 and other Pollutants Related NCDs from Field-to-Cell-to-Bedside (FCB), Chiang Mai University, Thailand

Total costs: ฿5,000,000

Project title: The agreement of the various distance walkway in the 6-minute walk test

Investigator status: Co-Principal Investigator (Co-PI)

Year: 2023

Funding source: Grant for Junior Researcher, Chiang Mai University, Thailand

Total costs: ฿200,000

Project title: Environmental-Occupational Health Sciences and Non communicable diseases research center

Investigator status: Co-Principal Investigator (Co-PI)

Year: 2023

Funding source: Grant for Research group, research center, and center of excellence, Chiang Mai University, Thailand

Total costs: ฿2,000,000

Project title: Effects of Semaglutide on functional capacity in patients with type 2 diabetes and peripheral arterial disease (STRIDE TRIAL)

Investigator status: Co-Principal Investigator (Co-PI)

Year: 2021

Funding source: Novo Nordisk Pharma (Thailand) Ltd., Thailand

Total costs: ฿5,486,400

Project title: The risk factors during pregnancy and first year of life to determine metabolic syndrome and vascular disease in 30 years follow up study

Investigator status: Co-Principal Investigator (Co-PI)

Year: 2020

Funding source: Health Systems Research Institute (HSRI), Thailand

Total costs: ฿2,000,000

## **STUDY GRANTS**

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2021 Chiang Mai University Presidential Scholarship for Postdoctoral Fellowship, Chiang Mai University, Thailand  
(Total costs: ฿492,000)

2017-2019 Teaching Resistance and Research Assistance (TA/RA) Scholarship, Chiang Mai University, Thailand  
(Total costs: ฿324,000)

2016 Partially Supported Research Grant, the Faculty of Graduate Studies and Graduate Studies of Mahidol University Alumni Association, Mahidol University, Thailand  
(Total costs: ฿15,000)