



International Conference on Medicine, Pharmacy, Nursing and Allied Health Sciences **MediSphere 2026**

Organized by
Annai College & Jiadhal College

**In collaboration with: Genovasi University College
,Petaling Jaya, Selangor, Malaysia & University of
Malaya, Malaysia.**

Editors
Dr.S. Balamuralitharan
Dr.R.Shanthi devi
Dr. Sindhura Kannappan
Dr. K. Sujith



**MediSphere
Research Excellence
Awards 2026**



**International Conference on Medicine,
Pharmacy, Nursing and Allied Health Sciences
MediSphere 2026**

**August 01 - 02, 2026
(virtual mode)**

Editors

Dr. S. Balamuralitharan

Dr. Sindhura Kannappan

Dr. K. Sujith

Dr. R. Santhi devi

International Conference on Medicine, Pharmacy, Nursing and Allied
Health Sciences

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PREFACE

Founded with a commitment to promoting academic excellence, research, and professional collaboration, Chendur Research Foundation (CRF) continues to provide meaningful platforms for knowledge exchange and innovation across diverse disciplines. In this spirit, we are pleased to present the International Conference on Medicine, Pharmacy, Nursing and Allied Health Sciences – MediSphere 2026, to be held in Virtual Mode on August 01–02, 2026. The conference brings together academicians, researchers, healthcare professionals, practitioners, students, and industry experts to share their knowledge, experiences, research findings, and innovative ideas in the rapidly evolving fields of medicine, pharmacy, nursing, and allied health sciences.

MediSphere 2026 provides an interdisciplinary forum for exploring recent developments, emerging technologies, evidence-based practices, and innovative approaches that are shaping the future of healthcare and allied health services. The conference aims to encourage meaningful discussions on contemporary healthcare challenges, advances in medical and pharmaceutical sciences, nursing innovations, healthcare technologies, patient-centred care, public health, and other emerging areas.

The conference also emphasizes the importance of research, innovation, and knowledge translation in improving healthcare outcomes and addressing emerging global health challenges. The virtual mode further enables wider participation and promotes the dissemination of knowledge beyond geographical boundaries.

We gratefully acknowledge the valuable contributions and support of the associating institutions, distinguished experts, invited speakers, delegates, researchers, participants, and members of the conference organizing committee. Their cooperation and dedication have been instrumental in making MediSphere 2026 a platform for meaningful academic interaction, professional development, and the advancement of healthcare knowledge.

We warmly welcome all participants to MediSphere 2026 and look forward to a productive, engaging, and enriching conference that inspires new ideas, encourages interdisciplinary collaboration, and contributes to the continued advancement of medicine, pharmacy, nursing, and allied health sciences.

Best Wishes.

EDITORS



DR.S. BALAMURALITHARAN

Message

We are pleased to invite you to participate in the International Conference on Medicine, Pharmacy, Nursing and Allied Health Sciences – MediSphere 2026, to be held in Virtual Mode on August 01–02, 2026. The conference is organized by Annai College and Jiadhal College, in collaboration with Genovasi University College, Petaling Jaya, Selangor, Malaysia, and the University of Malaya, Malaysia. The primary goal of this conference is to bring together healthcare professionals, academicians, researchers, practitioners, and experts from various disciplines to share their knowledge, research findings, innovations, and best practices in medicine, pharmacy, nursing, and allied health sciences. The conference aims to provide an international platform for meaningful academic exchange, interdisciplinary collaboration, and the development of innovative approaches to address emerging challenges in healthcare. We believe that MediSphere 2026 will serve as a valuable platform for young researchers, students, faculty members, and professionals to showcase their research, exchange ideas, and build meaningful academic and professional networks.



DR. K. SUJITH

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Sciences Nellimarla Vizianagaram
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Coimbatore



Mr. Pramod

HOD of Pharmaceutical Chemistry
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MediSphere 2026

Conference Theme

This theme emphasizes the convergence of medicine, pharmacy, nursing, and allied health sciences to improve patient outcomes, strengthen healthcare systems, and foster multidisciplinary research and innovation. It reflects current trends in healthcare innovation, digital health, patient-centered care, and interprofessional collaboration.

Key Areas of MediSphere 2026

Medicine & Clinical Sciences

- * Internal Medicine and Clinical Practice
- * Surgery and Surgical Innovations
- * Emergency and Critical Care Medicine
- * Public Health and Preventive Medicine
- * Infectious Diseases and Epidemiology
- * Oncology and Cancer Research
- * Cardiology, Neurology, and Specialized Care

Allied Health Sciences

- * Medical Laboratory Technology
- * Physiotherapy and Rehabilitation Sciences
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- * Nutrition and Dietetics
- * Occupational Therapy
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Research & Academic Development

- * Clinical Research Methodology
- * Translational Medicine
- * Evidence-Based Healthcare
- * Multidisciplinary Research Collaborations
- * Research Ethics and Publication Practices
- * Innovations in Medical Education and Training

Pharmacy & Pharmaceutical Sciences

- * Clinical Pharmacy Practice
- * Pharmacology and Therapeutics
- * Drug Discovery and Development
- * Pharmaceutical Biotechnology
- * Pharmacovigilance and Drug Safety
- * Personalized and Precision Medicine
- * Regulatory Affairs and Pharmaceutical Policy

Emerging Healthcare Innovations

- * Artificial Intelligence in Healthcare
- * Telemedicine and Digital Health
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- * Healthcare Data Analytics
- * Precision Health and Genomics
- * Sustainable Healthcare Systems

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- * Advanced Nursing Practice
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- * Community and Public Health Nursing
- * Nursing Education and Leadership
- * Patient Safety and Quality Care
- * Evidence-Based Nursing Practice
- * Mental Health and Psychiatric Nursing

Global Health & Healthcare Management

- * Health Policy and Administration
- * Healthcare Quality Improvement
- * Global Health Challenges
- * Health Equity and Accessibility
- * Pandemic Preparedness and Response
- * Interdisciplinary Healthcare Collaboration

These topics are consistent with the major focus areas commonly featured in international conferences covering medicine, pharmacy, nursing, and allied health sciences.

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IMPORTANT DATES

Last date for registration: 16.05.2026

Intimation regarding acceptance: 2 DAYS
(AFTER SUBMISSION)

Last date for submission of full paper: 16.05.2026

Conference dates: May 16 & 17, 2026



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LIST OF FULL PAPER PUBLICATIONS

F1	A STUDY ON DEVELOPMENT OF RURAL HERBAL AND FOLK MEDICINES FOR SUSTAINABLE DEVELOPMENT OF RURAL INDIAN COMMUNITIES AND SOCIETIES Dr. Pradipta Mukhopadhyay
F2	GENDER DIFFERENCES IN PERIPHERAL NERVE CONDUCTION PARAMETERS: A CROSS-SECTIONAL NEUROPHYSIOLOGICAL STUDY OF HEALTHY ADULTS Beulah Snowin D.R, Sowmiya T., Ashwini V.
F3	CLINICAL SPECTRUM OF PREVIOUSLY UNDIAGNOSED COMORBIDITIES IDENTIFIED DURING ROUTINE PRE-ANAESTHETIC ASSESSMENT AND THEIR IMPLICATIONS FOR PERIOPERATIVE RISK STRATIFICATION: A PROSPECTIVE OBSERVATIONAL STUDY Sowmiya T, Ashwini V, Beulah Snowin D.R
F4	DEVELOPMENT OF AN INTEGRATED DIFFICULT AIRWAY PREDICTION MODEL USING THE STOP-BANG QUESTIONNAIRE AND CONVENTIONAL BEDSIDE AIRWAY ASSESSMENT PARAMETERS IN ADULT SURGICAL PATIENTS: A PROSPECTIVE OBSERVATIONAL STUDY Ashwini V, Beulah Snowin D.R, Sowmiya T

GENDER DIFFERENCES IN PERIPHERAL NERVE CONDUCTION PARAMETERS: A CROSS-SECTIONAL NEUROPHYSIOLOGICAL STUDY OF HEALTHY ADULTS

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ABSTRACT

Background: Peripheral nerve conduction studies (NCS) are commonly employed to assess the operational health of the peripheral nervous system. Various physiological elements such as age, height, and gender can affect typical NCS measurements. Establishing gender-specific reference values is important for improving the accuracy of clinical interpretation.

Objective: To investigate gender differences in motor and sensory nerve conduction parameters among healthy adults.

Methods: A study was carried out on 50 individuals who were in good health, comprising 25 men and 25 women aged between 18 and 40 years, and with no past record of neurological or systemic illnesses. The participants underwent standardized assessments of nerve conduction, utilizing surface electrodes on various nerves such as median, ulnar, tibial, common peroneal, and sural. Different nerve conduction parameters like motor and sensory distal latencies, amplitudes, conduction speeds, and F-wave latencies were measured and then the data was analysed to compare the results between males and females using suitable statistical methods.

Results: Men showed notably longer distal motor and sensory latencies and extended F-wave latencies in comparison to women. Women displayed quicker nerve conduction speeds and greater sensory nerve action potential amplitudes, especially in the arms. Many of these variances were statistically significant, suggesting a steady impact of gender on peripheral nerve conduction metrics. **Conclusion:** The gender of healthy adults plays a crucial role in affecting the characteristics of peripheral nerve conduction. Typically, women have quicker nerve conduction and shorter latencies than men, while men tend to have longer distal and F-wave latencies. These results emphasize the importance of developing normative reference values specific to gender

to improve the precision of nerve conduction tests and reduce the risk of misinterpretation in clinical neurophysiology.

Keywords: Nerve conduction studies, Peripheral nerve conduction, Gender differences, Normative data, Healthy adults, Electrophysiology.

1. BACKGROUND

Nerve conduction studies are a core part of electrodiagnostic testing because they help assess the functional status of peripheral nerves in a direct and non-invasive manner. The value of these tests depends not only on the condition being investigated, but also on the biological characteristics of the person being tested, such as age, height, and gender. Among these, gender-related variation is clinically important because even small differences in latency, amplitude, and conduction velocity may influence interpretation of results in healthy individuals. If these variations are not recognised, the same reference values may be applied too broadly, reducing diagnostic accuracy.

In routine clinical practice, nerve conduction parameters are taken as measures of peripheral nerve health. Motor studies are based on compound muscle action potentials, whereas sensory studies are based on sensory nerve action potentials. These measurements are affected by technical factors like electrode placement, distance, filters, and limb temperature, but also by patient factors. Previous studies have demonstrated that gender influences conduction velocities, distal latencies, and amplitudes differently in motor and sensory nerves. Therefore, gender-specific normative values may increase the precision of neurophysiological interpretation in laboratories serving mixed populations.

The present study was designed to evaluate nerve conduction parameters in healthy male and female individuals across all four limbs, with particular attention to median, ulnar, peroneal, tibial, superficial peroneal, and sural nerves. By comparing these parameters in a young adult cohort, the study aims to contribute practical normative data that may be useful in clinical neurophysiology.

2. LITERATURE REVIEW

Earlier studies consistently found that gender affects nerve conduction values. Studies showed longer distal latencies and lower amplitudes in males, with faster conduction velocities and higher sensory amplitudes in females. In healthy adults, this pattern has been reported in both upper and lower limb nerves, suggesting that gender effects are not specific to a particular nerve distribution.

Several authors have also pointed out that height, in part, can account for differences in conduction velocity, but amplitude differences remain even after correction for height, age, and temperature. Studies from Indian and Omani populations, as well as from other populations, also found gender-based differences in median, ulnar, tibial, and peroneal nerve studies. Other work demonstrated that physiological variables like age and height combined with gender, making laboratory reference data necessary for the population being tested.

Taken together, the literature suggests that gender should be considered when interpreting nerve conduction studies in healthy subjects.

3. METHODS

This cross-sectional study included 50 healthy volunteers, comprising 25 males and 25 females, aged 18 to 40 years. Participants had no history of neurological disease, systemic illness, weakness, or poor cooperation, and were selected from the neurophysiological laboratory setting in Chennai. The study period described in the draft was February 2021 to July 2021, and routine motor and sensory nerve conduction recordings were obtained using standardized technique.

Motor studies were conducted for the median, ulnar, peroneal, and tibial nerves, and sensory studies were conducted for the median, ulnar, superficial peroneal, and sural nerves. The recorded parameters were latency, amplitude, conduction velocity, and F-wave latency. The study employed surface electrodes, with standard stimulation and recording placements as described in the original draft. Data were summarized as means with standard deviations and comparisons were made between males and females.

4. RESULTS

A total of 50 healthy adults (25 males and 25 females) underwent peripheral nerve conduction studies. The comparison of selected motor and sensory nerve conduction parameters between the two groups is presented in Table 1. Motor nerve conduction studies demonstrated that males had slightly longer distal motor latencies than females in the median, ulnar, common peroneal, and tibial nerves; however, these differences were not statistically significant ($p > 0.05$). Motor conduction velocities and CMAP amplitudes were also comparable between the two groups. In contrast, F-wave latencies of the median, ulnar, common peroneal, and tibial nerves were significantly prolonged in males ($p < 0.05$), indicating a consistent gender-related difference in proximal motor nerve conduction.

In the sensory nerve conduction studies, females demonstrated relatively shorter distal latencies and higher SNAP amplitudes than males. A statistically significant increase in median sensory SNAP amplitude ($p = 0.010$) and a significantly shorter ulnar sensory distal latency ($p = 0.030$) were observed in females. No significant differences were identified in sensory conduction velocities or the remaining sensory parameters ($p > 0.05$).

Overall, the findings indicate that gender-related differences in healthy adults are more evident in F-wave latency and selected sensory nerve parameters, whereas routine distal motor latency, conduction velocity, and CMAP amplitude remain largely comparable between males and females.

Nerve	Parameter	Male (Mean $\pm$ SD)	Female (Mean $\pm$ SD)	P value
Median Motor	Distal latency (ms)	3.10 $\pm$ 0.41	2.93 $\pm$ 0.45	0.173
	F-wave latency (ms)	26.67 $\pm$ 1.85	24.82 $\pm$ 1.33	<0.05
Ulnar Motor	Distal latency (ms)	2.29 $\pm$ 0.31	2.14 $\pm$ 0.27	0.09
	F-wave latency (ms)	27.67 $\pm$ 1.96	24.87 $\pm$ 1.31	<0.001
Common Peroneal Motor	Distal latency (ms)	3.25 $\pm$ 0.38	3.12 $\pm$ 0.41	0.25
	F-wave latency (ms)	49.66 $\pm$ 3.98	47.93 $\pm$ 3.93	0.001
Tibial Motor	Distal latency (ms)	3.49 $\pm$ 0.43	3.40 $\pm$ 0.43	0.59
	F-wave latency (ms)	45.88 $\pm$ 3.05	43.99 $\pm$ 3.02	<0.001
Median Sensory	SNAP amplitude (μ V)	71.91 $\pm$ 18.63	78.78 $\pm$ 21.08	0.01
Ulnar Sensory	Distal latency (ms)	2.08 $\pm$ 0.22	1.96 $\pm$ 0.19	0.03
Superficial Peroneal Sensory	SNAP amplitude (μ V)	21.96 $\pm$ 5.30	23.25 $\pm$ 7.54	0.81
Sural Sensory	SNAP amplitude (μ V)	17.56 $\pm$ 5.49	18.63 $\pm$ 5.54	0.64

Table 1 (above): demonstrates that statistically significant gender differences were primarily observed in F-wave latencies and selected sensory nerve parameters, whereas routine motor conduction parameters remained comparable between males and females.

5. DISCUSSION

The findings of this study support the view that gender influences nerve conduction parameters even in healthy adults. A consistent tendency toward longer latencies in males and relatively higher sensory amplitudes in females was observed across multiple nerves. This agrees with the broader literature, where gender differences have

repeatedly been reported in median, ulnar, tibial, peroneal, and sural nerve studies. The results also fit the concept that body habitus, limb length, and subcutaneous tissue thickness may contribute to physiological variation between men and women.

The sensory findings are particularly important because sensory amplitudes are often used in clinical interpretation and may be more sensitive to biological variation than conduction velocity alone. In this study, females showed higher sensory amplitudes in several nerves, which is consistent with earlier reports. Motor findings also followed a similar direction, with males showing slightly prolonged latencies in many measurements. These trends suggest that a single universal reference range may not always be ideal when interpreting nerve conduction studies in a mixed population.

From a clinical standpoint, the study reinforces the need to interpret borderline nerve conduction values with attention to gender, especially when evaluating subtle neuropathic changes. Even when the differences are modest, they may affect diagnosis in patients whose results lie near the lower or upper limits of normal. The study therefore adds practical value by supporting the use of population-specific and gender-aware reference values in electrodiagnostic laboratories.

6. CONCLUSION

The present study demonstrates that gender influences selected peripheral nerve conduction parameters in healthy adults. Males exhibited significantly prolonged F-wave latencies, whereas females showed higher sensory nerve action potential amplitudes and shorter sensory distal latencies in selected nerves. Routine motor conduction parameters, including distal latency, CMAP amplitude, and conduction velocity, showed no significant gender-related differences. These findings support the use of gender-specific reference values for selected nerve conduction parameters, particularly F-wave latency and sensory responses, to improve the accuracy of clinical neurophysiological assessment.

7. REFERENCES

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