

# Dantec™ KEYPOINT®

EMG/NCS/EP Workstation



**natus**<sup>®</sup>  
*neurology*

# ADVANCED EMG/NCS/EP WORKSTATION DESIGNED FOR CONVENIENCE & FLEXIBILITY

The Dantec Keypoint EMG/NCS/EP Workstation ensures a quick path to diagnostic accuracy. The fourth generation Keypoint sets new standards for test quality and flexibility, providing an optimized workflow from acquisition to final report.

- Ultra sharp 22" LCD display:



- Vertical adjustment enhances ergonomics for multiple users in either sitting or standing operation
- Right/left pan and forward/back tilt minimizes glare and increases viewing comfort
- Flexible amplifier/stimulator arm for close patient connection – easily moved without tools for placement on either side of the system
- Dedicated control panel eliminates need for mouse
- Height adjustable shelf for control panel and retractable shelf for keyboard and mouse
- Easily accessible storage of accessories
- Central cart console designed to contain integrated loudspeaker for real EMG sound, high performance ultra-small-form-factor PC and all essential cables



## OUTSTANDING RECORDING PERFORMANCE

Industry-leading amplifiers and stimulators feature outstanding signal quality and reliability.

Choose 3, 6 or 8 channel system with dedicated inputs for EMG, NCS and EP recordings using either needle electrodes or surface electrodes.



- High CMRR and Signal-to-Noise ratio for consistent recordings
- Software controlled interconnection of reference inputs
- Electrode impedance measurement with LED feedback

## VERSATILE EMG/NCS/EP SOFTWARE

*Growing exam volume, Larger data sets per exam, Less time...* in today's medical diagnostic environment, the clinical practitioner is confronted with an overwhelming amount of data for interactive analysis. Dantec Keypoint.NET software is designed to meet this challenge with an exclusive suite of flexible, customizable features to improve quality-based performance. Keypoint.NET consists of a number of customizable test templates which supports the following applications.

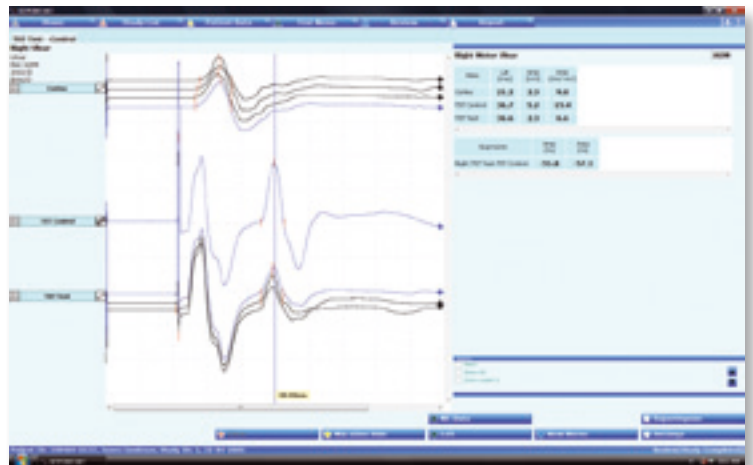
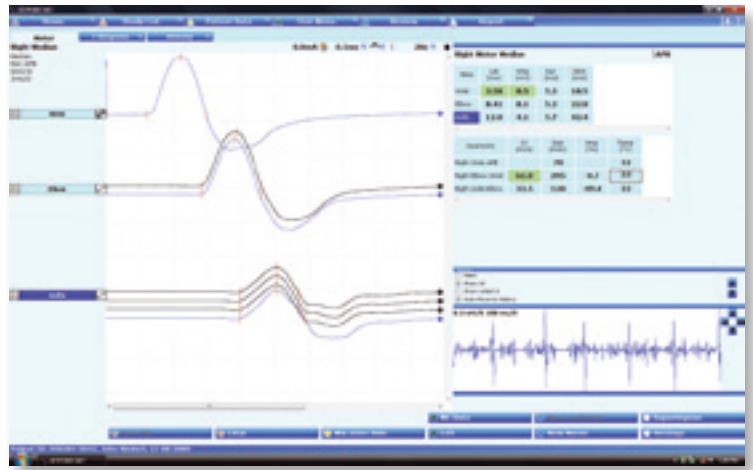
Test Template	Applications
Motor Nerve Conduction	Motor NC Motor Nerve Inching Reflex studies Silent Period Motor Evoked Potentials TST (Triple-Stimulation Technique) Sympathetic Skin Response Collision studies Refractory Period
Sensory Nerve Conduction	Sensory NC, Near-nerve Sensory NC Mixed NC Sensory Nerve Inching Micro Neurography
F-Wave	F-Wave testing
H-Reflex	H-Reflex testing
Blink Reflex	Electrical stimulated Blink Reflex Mechanical stimulated Blink Reflex
R-R Analysis*	R-R analysis R-R valsalva test

Test Template	Applications
EMG	Free-running EMG Signal triggered EMG Multi-MUP analysis TA analysis Peak-ratio analysis EMG event recorder
Single Fiber EMG	Signal-triggered Single Fiber EMG Stimulated Single Fiber EMG
RNS	Decrement test
EMG Monitor	Multi channel EMG Tremor assessment
SEP	Upper Extremity SEP Lower Extremity SEP Dermatome EP
AEP	BAEP, OHL MLEP, LLEP P300 CNV
VEP	Pattern Reversal VEP Flash VEP, Flash ERG

\* Not available in the U.S.

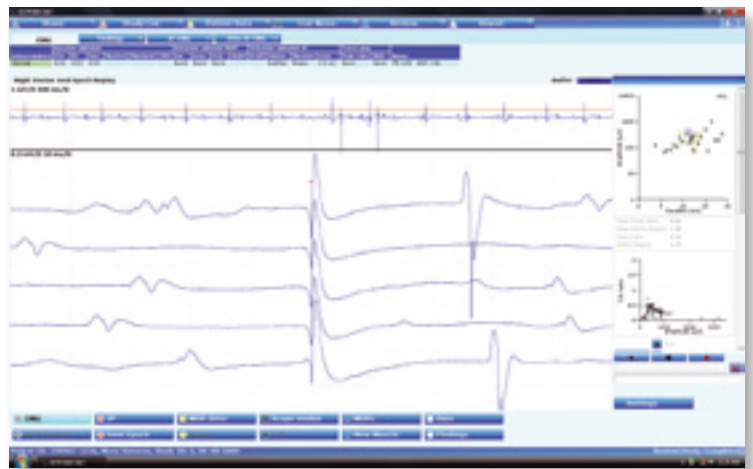
## VERSATILE NERVE CONDUCTION TESTING

- Auto event marking
- Repeat function per site
- Recordings saved with full acquisition resolution
- Full flexibility in modality mixing
- Comprehensive setup of reference values
- User-definable and fast NC results summary
- Separate window for display of background activity
- Choice of waveform background color



## ADVANCED EMG TESTING

- Split acquisition display combines long overview display and single-potential raster view
- Multi-MUP EMG Analysis
- Recordings saved with full acquisition resolution
- EMG event recorder function allowing event recordings up to 15 minutes
- Offline playback with sound
- Comprehensive set-up of reference values
- Choice of waveform background color



## REPORTING

Microsoft® Word-based report generator featuring:

- User-defined report layout including hospital or clinic logo, text fields, table layout and waveform plots
- User-defined column selection in tables
- User-defined table layout
- User-defined nerve and muscle order in tables
- Combine motor, F-wave and sensory test results in one table
- Pre-defined text blocks for user-preferred standard text

## STORE & RETRIEVE DATA EFFORTLESSLY

A secure and powerful Microsoft® SQL database, designed for easy file management enables automatic tracking and organization of patient recordings including:

- Patient and study related data
- Test results, settings and waveforms in full resolution
- Reference values
- Reports

## NETWORKING

The Keypoint network capabilities were developed to support a wide range of installation sites while focusing on security and reliability. Adaptable to small clinics with no professional IT support, as well as large hospital installations with system access controlled by IT using Active Directory Services.

## EMR INTEGRATION

The Keypoint database can be connected to an EMR system using HL7 or SOAP communication protocols. Interfacing with the hospital EMR system includes receiving patient demographic information and sending reports in either Microsoft® Word or XML format.

## CONSUMABLES

Natus offers a complete line of quality needle and surface electrodes to complement the outstanding performance of the Dantec Keypoint family of EMG/NCS/EP systems.

Name: Doe, Jane
22-08-2009

### EMG Laboratory

Neurological Institute  
17800 Newhope Street  
Fountain Valley, CA 92708  
Tel: 714-839-8426 Fax: 714-839-8429

Name: Doe, Jane      Date of Study: 22-08-2009  
Diagnosis:                      Sex: Female  
Date of Birth: 07-04-1939      Age: 70  
Physician: Michael Smith, MD      Height: 163  
Ref. Physician: Grace Dickinson, MD      Technician:

**Reason for Study**

This is a 70 years old patient who had a cerebrovascular accident in March 2008. She stated that since she has been noticing some pain which radiates from the wrist into the hand and up into the elbow and area. She fields that her whole hand is numb. She denied any actual trauma, but the right upper and left extremities were involved as a result of the cerebrovascular insult.

**Findings:**

Median motor studies revealed prolonged distal latencies and amplitudes bilaterally. Median F waves were prolonged. Ulnar motor studies revealed prolonged distal latencies, nerve conduction velocities across forearm and amplitudes bilaterally. Ulnar F waves were normal. Radial motor studies revealed normal distal latencies and amplitudes bilaterally. Median sensory studies revealed slowed distal latencies, severe on the right, moderate on the left with normal amplitudes. Ulnar sensory studies revealed normal distal latencies and normal amplitudes. Radial sensory studies revealed normal distal latencies and normal amplitudes. Orthodromic palmar myoelectric comparison studies revealed median nerve slowing across the wrist bilaterally. Temperature was assessed of testing and found to be 32.0.

**Conclusion**

Abnormal study. Electrophysiologic evidence for median neuropathy at both the right wrist, severe as evidenced by sensory slowing and sensory amplitude loss and left wrist, moderate as evidenced by sensory slowing, asymmetrical comparison studies across the wrists. No electrophysiologic evidence for motor or sensory polyneuropathy, ulnar neuropathy at the elbow, brachial plexopathy or cervical radiculopathy. Clinical correlation always indicated.

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#### Motor Nerve Conduction Studies

Nerve	Latency		mV	Amplitude	Distance	Conduction Velocity		Shortest F Latency	Normal F Latency
	Onset Lat. (ms)	Normal Latency				ms	Normal CV		
<b>Median Motor Left</b>									
Ind. - APB	14.4	< 3.9	2.4	62.0				44.6	< 25.9
ulnar-Ind	19.9		2.5	295	44.6	> 50.8			
<b>Median Motor Right</b>									
Ind. - APB	12.7	< 3.9	3.3	68.0				36.1	< 25.9
ulnar-Ind	16.9		3.1	214	31.0	> 50.8			
<b>Ulnar Motor Left</b>									
Ind. - ACR	8.54	< 3.0	2.7	75.0				35.4	< 25.2
u-Elbow-Ind	12.3		1.80	219	36.2	> 53.3			
u-Elbow-u-Elbow	15.8		1.00	118	33.7	> 43.0			
Elb-Axilla	20.9		1.00	172	31.5	> 53.9			
Axilla-u-Elbow	17.8		1.00	85.0	42.5	> 46.0			
<b>Ulnar Motor Right</b>									
Ind. - ACR	6.98	< 3.0	2.7	63.0				33.8	< 25.2
u-Elbow-Ind	14.2		0.90	227	33.4	> 53.3			
u-Elbow-u-Elbow	15.7		0.96	92.0	41.2	> 43.0			
Elb-Axilla	22.6		0.70	179	36.9	> 53.9			
Axilla-u-Elbow	18.9		0.80	103	44.8	> 48.0			
<b>Tibial Motor Left</b>									
Med. Ind. - Med Ind	8.88	< 4.9	3.5	96.0				53.4	< 52.8
Med. Ind. - Med. Ind	17.5		3.5	302	42.1	> 52.7			

#### Sensory Nerve Conduction Studies

Nerve	Peak Latency		Amplitude	Conduction Velocity
	Peak Lat. (ms)	Normal Peak Lat.		
<b>Radial Sensory Left</b>				
antibrachial - Tarsals	1.79		30.2	58.2

#### Motor Curves

**Left Motor**

**Right Motor**

Michael Smith, M.D.

Both clinical and advanced research environments share the challenge of obtaining high diagnostic yields and accurate data. Our mission at Natus Medical is to create solutions that help healthcare providers meet that challenge. Years of experience dedicated to the field of neurodiagnostic testing went into the development of a new advanced system designed for the productivity-focused electromyographer. Close collaboration with leading hospitals and universities coupled with valuable input from our customers has helped us develop truly revolutionary products that add unique value to your practice.



Please consult [www.natus.com](http://www.natus.com) for your local sales & service office.

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**Disclosure:** See product labeling for specific directions regarding product use, contraindications, warnings, precautions and potential adverse events.

**Caution:** Federal Law (USA) restricts this device to sale by or on the order of a physician.

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