

# **EMG Report Formulation**

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# What's in an EMG Report?

- **Regulatory/billing requirements**
- **Limitations/special circumstances**
- **Studies done**
- **Abnormalities found**
- **Diagnosis**

# Regulatory/Billing Requirements

- **Name, date, identifiers**
- **Reason for study (referring dx)**
- **Symptoms/signs (clinical findings)**
- **Itemization of studies performed**
- **Diagnosis/Impression**

# Limitations/Special Circumstances

- Performed bedside in the ICU
- Performed under conscious sedation in the OR
- Study technically limited/hampered by an incomplete motor unit activation pattern, related to
  - pain/discomfort, or
  - reduced (**poor**) voluntary effort, or
  - a central disorder of motor unit control

# What Was Done

- **Use tables**
  - **NCS, Needle EMG**
  - **NCS: values, comparative normative data, temperature, side**
  - **EMG: spontaneous/ insertional and voluntary activity**
- **Alternative: narrative summary (very wordy, hard to read and understand)**
- **If you use tables, the abnormalities are already in place in the report**

# Formulating the Diagnosis

- **Localization**
- **Physiology (axon loss, demyelination)**
- **Activity**
- **Chronicity**
- **Severity**

# Formulating the Impression

**The splitter's approach:**

- **R arm shows...**
- **R leg shows...**
- **R mid-thoracic psp shows...**
  
- **Based on the above findings...**

# Formulating the Impression

**The lumper's approach:**

- **List diagnoses or lack of diagnoses in individual bullet points or paragraphs**
- **Support each diagnosis with brief summary of the findings leading to the dx within the bullet**



# Impression

- **R median neuropathy at or distal to the wrist, c/w carpal tunnel syndrome, severe in degree, based on absence of the median sensory response and marked prolongation of the median motor DL**
- **No evidence of R cervical radiculopathy, based on study of C5-T1 muscles**
- **Screening studies of the ulnar and radial nerve distributions are normal**

# Impression

- **L C6-7 intraspinal canal lesion, moderate in degree, based on chronic/old motor unit potential changes and active motor axon loss changes in multiple muscles**

**Or:**

- **Chronic and active motor axon loss changes in multiple L C6-7 muscles, moderate in degree, c/w an intraspinal canal lesion at that level, such as radic**

# Impression

- **Based on extensive study of the L arm and leg, the EMG findings are indeterminate:**
- **Chronic and active motor axon loss in multiple muscles of the arm, 3/7 muscles with fasciculation potentials. No clear changes in the leg or thoracic psp muscles. While these findings could represent an evolving MND, they are insufficient for diagnosis. Differential dx of these findings includes...**

# Report Example

**Sx/Signs: T/N in feet, absent AJs**

**Referring Dx: PN**

**Based on extensive study of the R leg, arm, and high sacral psp muscle, and additional study of the L leg, the EMG findings follow:**

- 1. Bilateral S1 intraspinal canal lesions...**
- 2. R median neuropathy at or distal to...**
- 3. No EMG evidence of peripheral PN, including intact sural and plantar...**

## **No, No to “Normal”**

**Sx/Signs: T/N in feet, absent AJs**

**Referring Dx: PN**

**Electrodiagnostic study of the R leg is normal**

**Instead:**

**1.No EMG evidence of peripheral polyneuropathy.**

**2.No EMG of LS radiculopathy, including study of L3-S1 innervated muscles.**

**3...**

# Formulating the Report

- **Convey meaning simply**
- **Touch the bases: regulatory, EDX**
- **Anticipate your reader**