

# NeuroTrace Academy Study Guide

**Category:** Medical Terminology

**Topic:** Spinal Cord & Muscle Terms

**Style:** Definition-based, exam-oriented, suffix-focused

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## 1. Core Principles (Must Know)

### Suffix Recognition

- "-itis" = inflammation
- "-pathy" = disease (general)
- "-oma" = tumor
- "-osis" = condition/process

### Key Principle

- Suffixes indicate mechanism (inflammation vs disease vs tumor)
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## 2. Muscle Terms

### Myositis

- **Definition:** Generic term for muscle inflammation causing pain and weakness
  - **Suffix:** "-itis" = inflammation
  - **Features:**
    - Muscle inflammation
    - Pain and weakness
    - Elevated inflammatory markers
  -  **Key:** "-itis" suffix = inflammation
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### Myopathy

- **Definition:** Generic term for a disease of the muscle that usually results in deterioration of the muscle
- **Suffix:** "-pathy" = disease (general)
- **Features:**
  - General muscle disease
  - May or may not be inflammatory
  - Broader term than myositis
-  **Key:** "-pathy" = general disease (broader than "-itis")

 **Exam Trap:** Myositis = inflammation (specific). Myopathy = general disease (broader, may or may not be inflammatory)

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## 3. Spinal Cord Terms

### Myelitis

- **Definition:** Inflammation of the spinal cord which can cause headaches, fever, muscle stiffness, pain, weakness and eventually paralysis
- **Suffix:** "-itis" = inflammation
- **Location:** Spinal cord
- **Features:**
  - Spinal cord inflammation

- Can cause paralysis
  - **Key:** Spinal cord + "-itis" = myelitis
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## Myelopathy

- **Definition:** General term for spinal cord disease
- **Suffix:** "-pathy" = disease (general)
- **Location:** Spinal cord
- **Features:**
  - Broader than myelitis
  - May or may not be inflammatory
- **Key:** Spinal cord + "-pathy" = myelopathy (broader)

**Exam Trap:** Myelitis = inflammation (specific). Myelopathy = general disease (broader)

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## Myelomeningocele

- **Definition:** Protrusion of the spinal cord and its coverings (meninges) out from the spine, one of the more severe forms of spina bifida
  - **Components:**
    - Spinal cord
    - Meninges
  - **Severity:** Most severe form of spina bifida
  - **Key:** Cord + meninges = myelomeningocele (most severe)
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## Myelofibrosis

- **Definition:** Build up of fibrous connective tissue in the bone marrow affecting the production of blood components
- **Location:** Bone marrow (NOT spinal cord)
- **Effect:** Affects hematopoiesis (blood cell production)
- **Key:** Bone marrow + fibrosis = myelofibrosis

**Exam Trap:** "Myelo-" can mean spinal cord OR bone marrow - context matters

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## 4. Nerve Terms

### Motor Nerve

- **Definition:** A nerve that carries messages to a muscle that cause the muscle to move
  - **Type:** Efferent (carrying signals away from CNS to muscles)
  - **Function:** Causes muscle movement
  - **Key:** Efferent + muscle movement = motor nerve
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### Multiple Sclerosis

- **Definition:** A disease in which the protective coverings of nerve fibers in the brain are gradually destroyed with symptoms of numbness to paralysis and loss of control of bodily function
- **Location:** Central nervous system (brain and spinal cord)
- **Mechanism:** Demyelination
- **Features:**
  - CNS demyelination
  - Relapsing-remitting course
  - Multiple symptoms

- **EEG:** May show diffuse slowing during exacerbations
  - **🔑 Key:** CNS + demyelination = multiple sclerosis
- ⚠ **Exam Trap:** CNS (not peripheral) distinguishes from Guillain-Barré
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## 5. Bone Marrow Terms

### Multiple Myeloma

- **Definition:** A cancer affecting cells in the bone marrow
- **Type:** Malignant plasma cells
- **Location:** Bone marrow
- **🔑 Key:** Bone marrow + plasma cells + malignant = multiple myeloma

⚠ **Exam Trap:** "Myelo-" here means bone marrow (not spinal cord)

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## 6. High-Yield Exam Discrimination Table

Term	Suffix	Location	Mechanism
Myositis	-itis	Muscle	Inflammation
Myopathy	-pathy	Muscle	General disease
Myelitis	-itis	Spinal cord	Inflammation
Myelopathy	-pathy	Spinal cord	General disease
Myelofibrosis	-osis	Bone marrow	Fibrosis
Multiple myeloma	-oma	Bone marrow	Cancer
Multiple sclerosis	-osis	CNS	Demyelination

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## 7. ABRET Exam Pearls

### Critical Distinctions

1. **"-itis" vs "-pathy":** Inflammation (specific) vs general disease (broader)
2. **Myositis vs Myopathy:** Inflammation vs general muscle disease
3. **Myelitis vs Myelopathy:** Spinal cord inflammation vs general cord disease
4. **"Myelo- context:** Can mean spinal cord OR bone marrow - check context

### Common Exam Traps

- Mixing "-itis" (inflammation) with "-pathy" (general disease)
  - Confusing myositis (inflammation) with myopathy (general)
  - Forgetting that "myelo-" can mean bone marrow (myelofibrosis, myeloma) or spinal cord (myelitis)
  - Missing that multiple sclerosis is CNS (not peripheral)
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## 8. Quick Reference Summary

### Must-Know Suffixes

- "-**itis**" = inflammation (specific)
- "-**pathy**" = disease (general, broader)
- "-**oma**" = tumor
- "-**osis**" = condition/process

## Must-Know Definitions

- **Myositis:** Muscle inflammation
- **Myopathy:** General muscle disease
- **Myelitis:** Spinal cord inflammation
- **Myelopathy:** General spinal cord disease
- **Motor nerve:** Efferent nerve to muscles
- **Multiple sclerosis:** CNS demyelination
- **Multiple myeloma:** Bone marrow cancer

## Memory Anchors

- "-itis" = inflammation (think "it is inflamed")
- "-pathy" = disease (think "pathology")
- Myelo- = check context (cord or marrow)
- Motor = movement (think "motor" = "moves")

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## Next Steps:

- Memorize suffix meanings
- Learn "-itis" vs "-pathy" distinction
- Understand "myelo-" context (cord vs marrow)
- Practice discrimination between similar terms