

Teaching Course  
Toxic Peripheral and Cranial Neuropathies  
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**XXVII WORLD CONGRESS  
OF NEUROLOGY** (WCN 2025)  
12-15 OCTOBER 2025  
SEOUL, SOUTH KOREA

**Seoul**



WCN 2025 in Seoul – The Soul of Neurological Innovation



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## Disclosure

I have nothing to disclose  
and no conflict of interest.

# Outlines

## Overview of peripheral neuropathies (PN)

Epidemiological facts, a practical approach to diagnosis

## Clinical cases

- A personal case of cranial neuropathy,
- The N-hexane cases from the literature
- Nitrous oxide cases from E. Lagrange experience
- Arsenic, the King of poison and the poison of Kings

## Review of toxic causes of PN

- Classical toxics: Lead, Carbon Disulfide, Mercury, Thallium, TCE, “Toxic oil”, etc.
- New concerns, mixed exposures: WTC , Vietnam and Gulf Wars, fire fumes

# Learning Objectives

Always consider a toxic cause when diagnosing peripheral neuropathy.

Even if causes seem obvious like diabetes mellitus, alcoholism, chemotherapy, possible medications' side-effects

Ask relevant questions when interviewing the patient

Do not leave the patient uncertain about the diagnosis

Even in the absence of curative treatment, always offer symptomatic treatment

# Take-home Lessons

- Although rare, often undiagnosed, NPs a significant problem.
- Due to an emergency management of acute/subacute poisonings.
- Due to the potential therapeutic consequences:
  - Stopping the exposure,
  - Possibility of specific chelation treatments.
- Due to the legal consequences:
  - Expertise and differential diagnosis with usual PN causes,
  - Occupational exposure and liability
  - Criminal arsenic poisoning.

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