

Joint Event  
15<sup>th</sup> World Congress on  
Pediatrics, Clinical Pediatrics and Nutrition  
&  
28<sup>th</sup> International Conference on  
Nursing Practice

November 28-29, 2018 | Dubai, UAE

## Magnesium, the forgotten cation

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### Objectives:

- To review the role of Mg+2 in the body.
- Review the Hypomagnesaemia, its causes, symptoms, and treatment.
- Set simple approach for hypomagnesaemia.
- Review Hypermagnesemia and its consequences

### Mg+2 Hemostasis:

- Mg+2 is the 4th most common cation in the body and the 2nd most common intracellular cation.
- The kidney is a major regulator of total body Mg+2 homeostasis.
- Most of filtered Mg+2 reabsorbed by the thick ascending loop of Henle.

Hypomagnesemia is defined as a serum magnesium level less than 1.8 mg/dL (< 0.74 mmol/L)

### Symptoms:

- Most patients are asymptomatic until the concentration of 1.2 mg/dL (0.49 mmol/L).
- Early symptoms are nonspecific and include lethargy and weakness.
- The prominent organ systems associated with Hypo Mg are the cardiovascular and neuromuscular.
- Muscle weakness.
- Positive Chevostek sign and Trousseau sign tetany, and generalized seizures.

Treatment of hypomagnesemia

Hypermagnesemia

Cases discussion

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