



## Health Hazards of Lithium-Ion Battery Electrolyte Exposure

### Exposure Routes & Symptoms

#### Inhalation:

- Irritation of the nose and throat.
- Shortness of breath.
- Pulmonary edema (fluid in the lungs) in severe cases.
- Possible coughing and chest pain.



#### Skin Contact:

- Redness and pain.
- Severe tissue damage (potentially delayed).
- Blistering (vesication).

#### Eye Contact:

- Irritation, redness, and pain.
- Potential for severe eye damage.



#### Ingestion:

- Nausea and vomiting.
- Abdominal pain.
- Diarrhea.
- Loss of appetite.
- In severe cases: confusion, tremors, seizures, and coma.

#### General Systemic Effects (can occur with severe exposures):

- Low blood pressure (hypotension).
- Abnormal heart rhythms (dysrhythmias).
- Metabolic acidosis (buildup of acid in the body).
- Seizures.
- Coma.



<b>Concentration</b>	Higher concentration = more severe symptoms
<b>Hydrogen Fluoride</b>	Can be released during decomposition, extremely toxic
<b>Sensitivity</b>	Reactions vary by individual – always use full PPE
<b>First Aid</b>	Flush with water and get medical help right away