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## Protecting Vulnerable Populations During Extreme Cold

As winter deepens, extreme cold can pose serious health risks, particularly for vulnerable populations. Seniors, young children, people with chronic illnesses, and those living with multiple chemical sensitivity (MCS) are often most at risk. Recognizing environmental hazards and taking preventive steps can save lives and reduce long-term health impacts.

### The Health Risks of Extreme Cold

Exposure to cold temperatures can strain the body in multiple ways:

- Hypothermia: A dangerous drop in body temperature that can affect heart and brain function.
- Frostbite: Tissue damage, often in fingers, toes, ears, and nose.
- Cardiovascular stress: Cold triggers blood vessel constriction, raising blood pressure and increasing the risk of heart attack and stroke.

For people with MCS, the use of chemical-based heating products, air fresheners, or poorly ventilated indoor spaces can exacerbate symptoms while trying to stay warm, adding an extra layer of risk.

### Vulnerable Populations

Certain groups are more susceptible to cold-related health problems:

- Older adults: Slower circulation and reduced body temperature regulation increase risk.
- Infants and young children: Immature thermoregulation and higher surface area-to-body mass ratio make them prone to heat loss.

- People with chronic conditions: Cardiovascular disease, diabetes, and respiratory illnesses can worsen in extreme cold.
- Individuals with MCS: Multiple chemical sensitivity may limit safe access to heating methods or protective clothing.

## Practical Protection Strategies

Communities, caregivers, and individuals can take several steps to protect health during extreme cold:

1. Ensure safe heating: Use well-maintained, low-emission heating sources and avoid scented fuels or chemical sprays.
2. Dress in layers: Warm, breathable clothing helps retain body heat.
3. Check on neighbours and family: Seniors and people with mobility challenges may need assistance accessing warm spaces.
4. Create chemical-safe warming spaces: People with MCS need spaces free of fragrances, cleaning chemicals, and irritants to avoid triggering symptoms.
5. Stay informed: Monitor weather alerts and public health advisories.

## Community Preparedness

Protecting vulnerable populations during extreme cold requires community-level action. Cities and organizations can:

- Maintain accessible warming centers with low chemical exposure environments.
- Promote public awareness campaigns about cold-related health risks.
- Ensure emergency response plans include the needs of individuals with MCS.

## A Healthier Winter for Everyone



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Extreme cold affects more than just comfort; it can be life-threatening. By understanding risks, preparing homes and communities, and considering the unique needs of vulnerable populations, we can create safer, healthier winters for everyone, including those with MCS.