



# Extreme Cold Weather Response Workshop

Winter 2023-2024

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I would like to acknowledge that I am joining you from the traditional, ancestral and unceded and stolen territory traditional territories of the  $x^w m \theta k^w \acute{a} y \acute{a} m$  (Musqueam),  $S k w x w \acute{u} 7 m e s h$  (Squamish), and  $s \acute{a} l i l w \acute{e} t a \acute{t}$  (Tsleil-Waututh) Nations.



**REACH**  
Community Health Centre





# Who is most vulnerable to the health effects of cold weather?

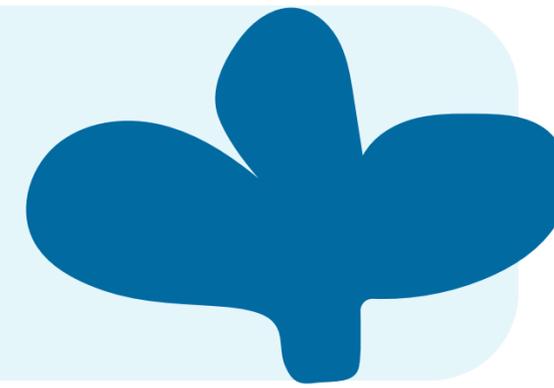


# Who is most vulnerable to the health effects of cold weather?

- Older adults (65 years +) and infants (under 1 year)
- People with pre-existing medical conditions or on certain medications
- People unhoused or insecurely housed
- Communities who experience systemic oppression
- People using substances (including alcohol)
- People with disabilities
- Outdoor workers

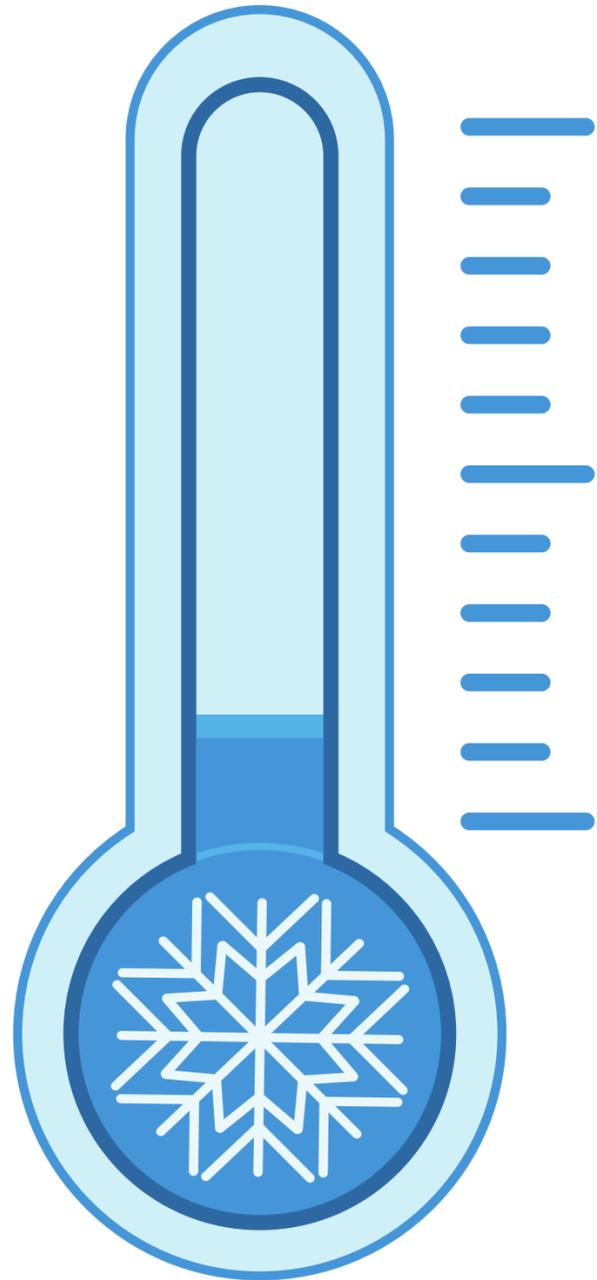


# Part 1: Hypothermia



- Roughly 25 deaths per year in B.C. directly due to hypothermia
  - Primarily: low socio-economic status, elderly, rural settings
- Hypothermia exacerbates many other conditions
- Defined as a core temperature  $< 35^{\circ}\text{C}$
- Hypothermia can occur at milder temperatures than you might think...

# What are the signs of hypothermia?



## Mild

- Alert, may be confused
- Shivering
- Not functioning normally

32-35C

## Moderate

- Confused, clumsy, difficulty speaking
- Lethargy, sleepy
- With or without shivering

28-32C

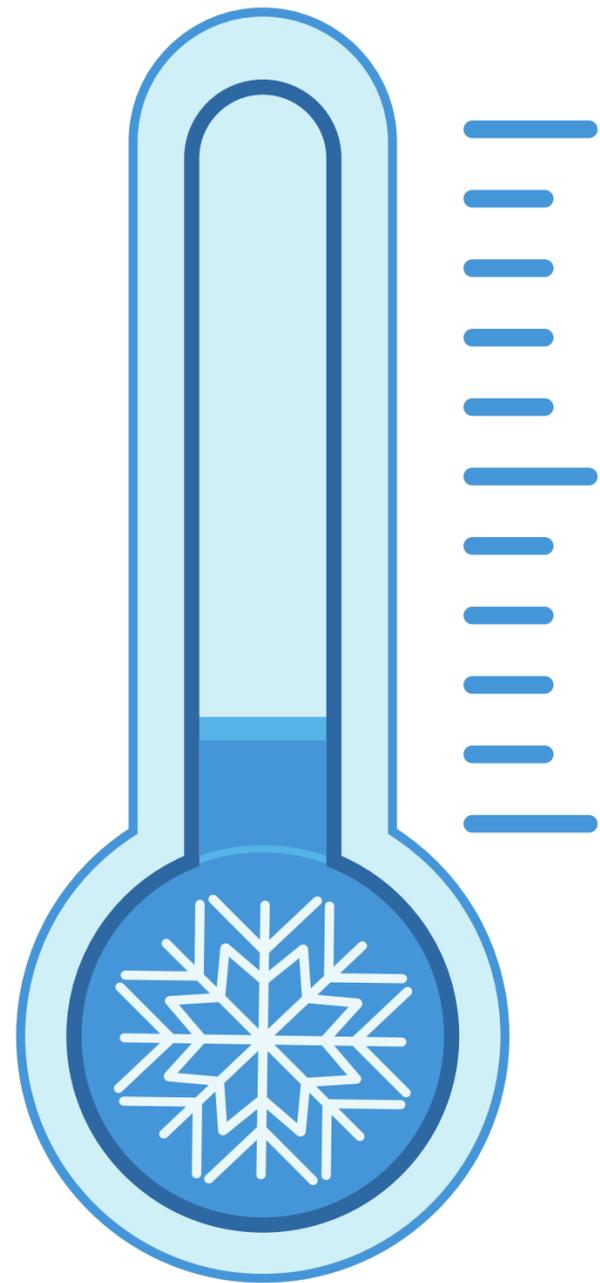
## Late

- Unconscious.
- Slow, weak or absent breathing and pulse.
- No shivering

<28C



# What should we do?



## Mild

- Alert, may be confused
- Shivering
- Not functioning normally

32-35C

- Get out of the cold
- Remove wet clothing
- External heat: layers, heated blankets, hot water bottles – but not right on skin!
- Offer warm, sweet fluids if awake
- 911 if no improvement in 30 minutes



# What should we do?

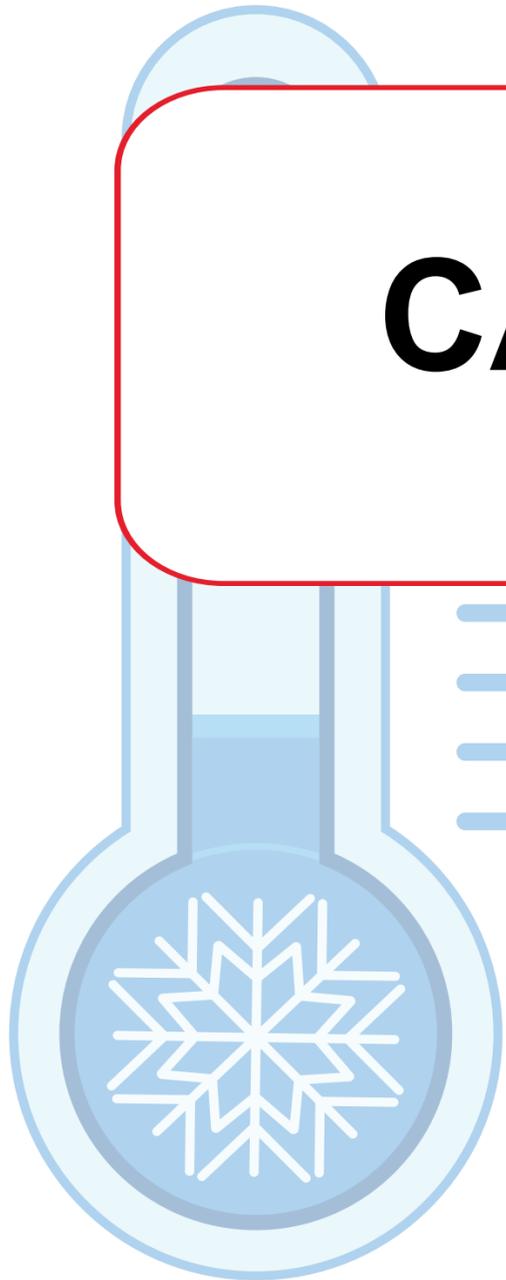
**CALL 911**

Gently, slowly rewarm  
Avoid massaging extremities  
Check pulse for a full minute  
Handle gently

Do a first aid course!

-32°C

<28°C



Moderate

- Confusion
- Lethargy
- With or without

conscious.

Weak or absent breathing and pulse.

Covering

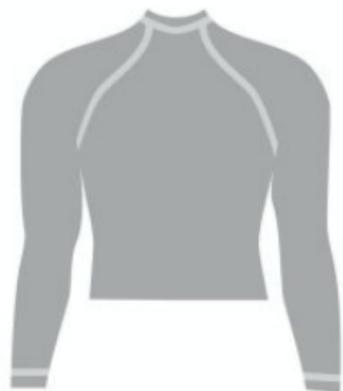




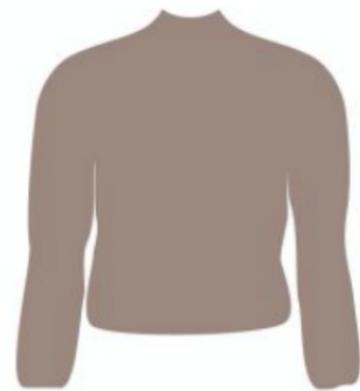
# Layer your clothes!

- **Inner Layer** – "wicking" properties to move any moisture away from skin
- **Middle Layer** – the warm layer
- **Outer Layer** – the "windbreaking" layer

Long-sleeve shirt



Sweatshirt or  
Fleece



Shell Jacket



**Cotton kills!**





# Carry an Emergency Blanket!

- **Emergency blankets can reflect up to 90% of body heat back to the wearer**
- How to use for warmth:
  - wrap yourself in a wool or fleece blanket. Put the Mylar blanket *outside* of these blankets.
- Dry before using & **NEVER** put an emergency blanket right next to your skin





# Stay Hydrated!



- Being hydrated helps prevent hypothermia!
- Drink warm fluids
- Avoid drinking alcohol and caffeinated drinks.



# Nutritious Foods to Keep You Warm In Cold Weather



- **Fibre-rich foods** (broccoli, cabbage, kale, banana) take longer to digest and can help to raise your body temperature!
- **Complex carbohydrates** (whole grains, oats, potatoes) keep you fuller and warmer longer than simple carbohydrates (chocolate bars, biscuits)
- **Iron rich foods** (spinach, black beans, lentils) help carry oxygen to areas that loose heat fast (hands, feet, nose)



# On a community level...

- Consider how to encourage, incorporate or promote check-ins
- Warming centers & spaces
- Outreach to priority populations
- Increase communication



# Stay up to date!

- **Vancouver Coastal Health Public Health – Seasonal Readiness Updates.**  
Sign up by emailing [seasonalreadiness@vch.ca](mailto:seasonalreadiness@vch.ca)
- **Environment and Climate Change Canada**
  - Early warning email notifications for organizations involved in emergency response. Email [MeteoPac@ec.gc.ca](mailto:MeteoPac@ec.gc.ca) to sign up.
  - EC Alert Me: sign up at [https://ecalertme.weather.gc.ca/home\\_en.php](https://ecalertme.weather.gc.ca/home_en.php)
- **Emergency Information BC**
- **PreparedBC**





# Part 2: Falls

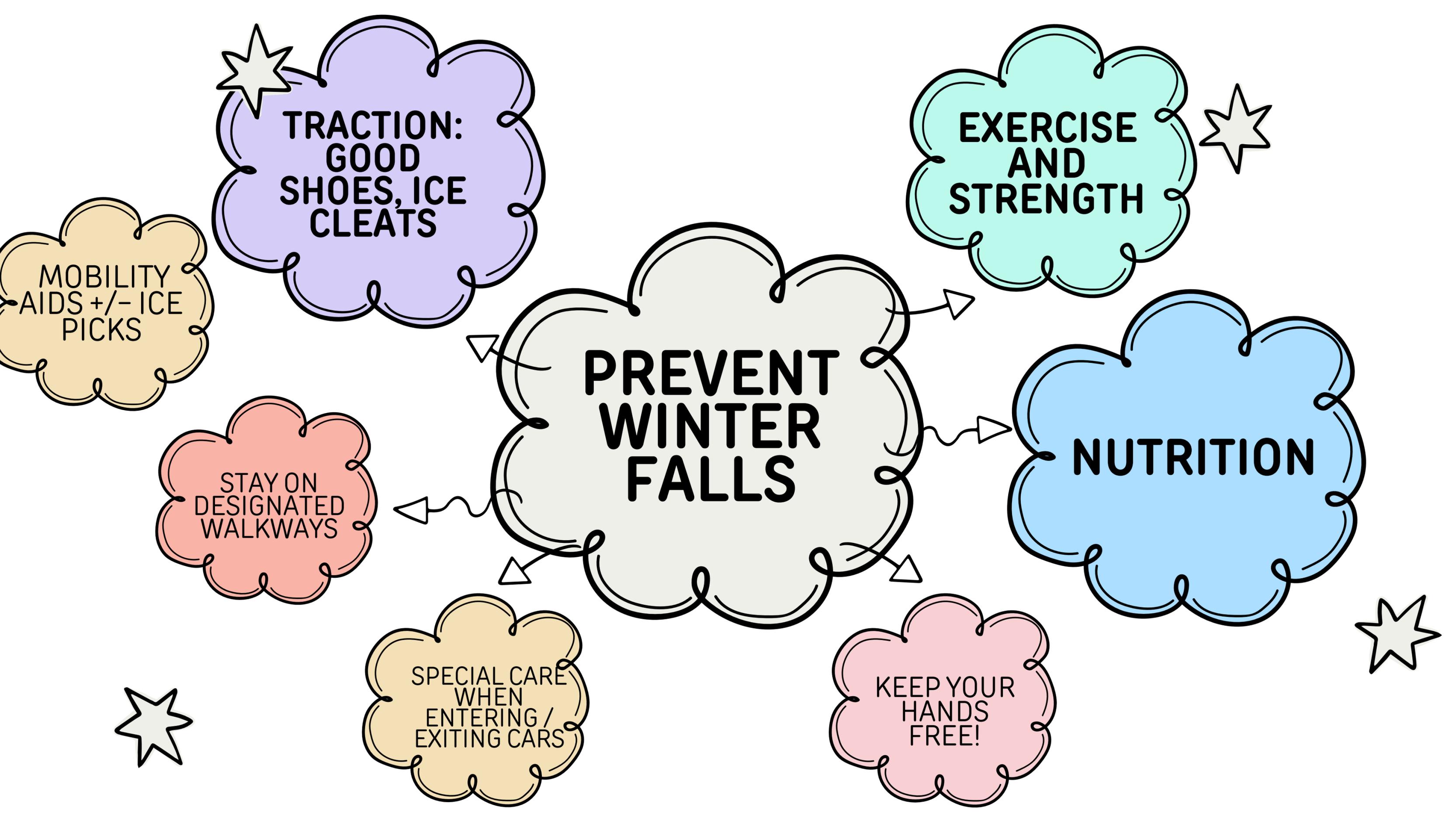
- 1 of 3 adults over the age of 65 fall every year
- The risk of injury from falls increases with age



1. Campbell AJ, Borrie MJ, Spears GF, Jackson SL, Brown JS, Fitzgerald JL. Circumstances and consequences of falls experienced by a community population 70 years and over during a prospective study. *Age Ageing*. 1990;19(2):136–41.

2. Peel NM, Kassulke DJ, McClure RJ. Population based study of hospitalised fall related injuries in older people. *Injury Prev*. 2002;8(4):280–3.

3. <https://www.findingbalancebc.ca/campaign-toolkit/>



TRACTION:  
GOOD  
SHOES, ICE  
CLEATS



MOBILITY  
AIDS +/- ICE  
PICKS

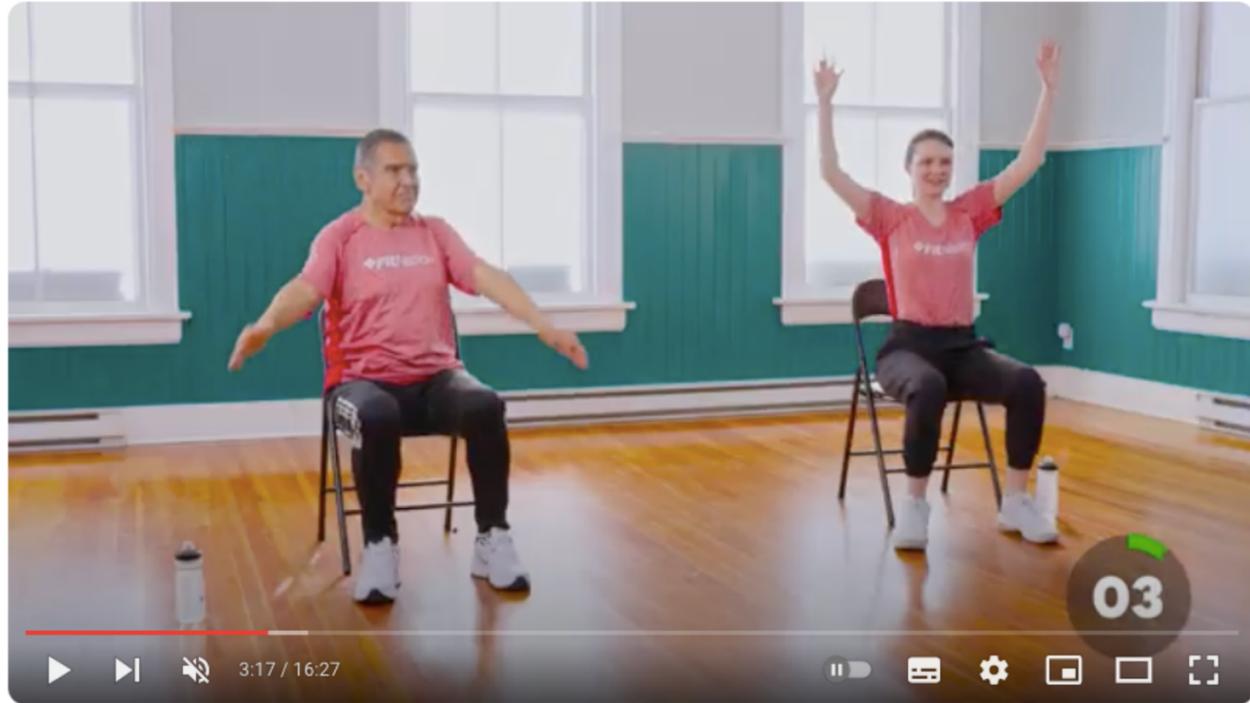


STAY ON  
DESIGNATED  
WALKWAY

NUTRITION

KEEP YOUR  
HANDS  
FREE!

# Exercise prevents falls...



Full Body Chair Workout

 I-SPARC - Indigenous Sport BC  
616 subscribers

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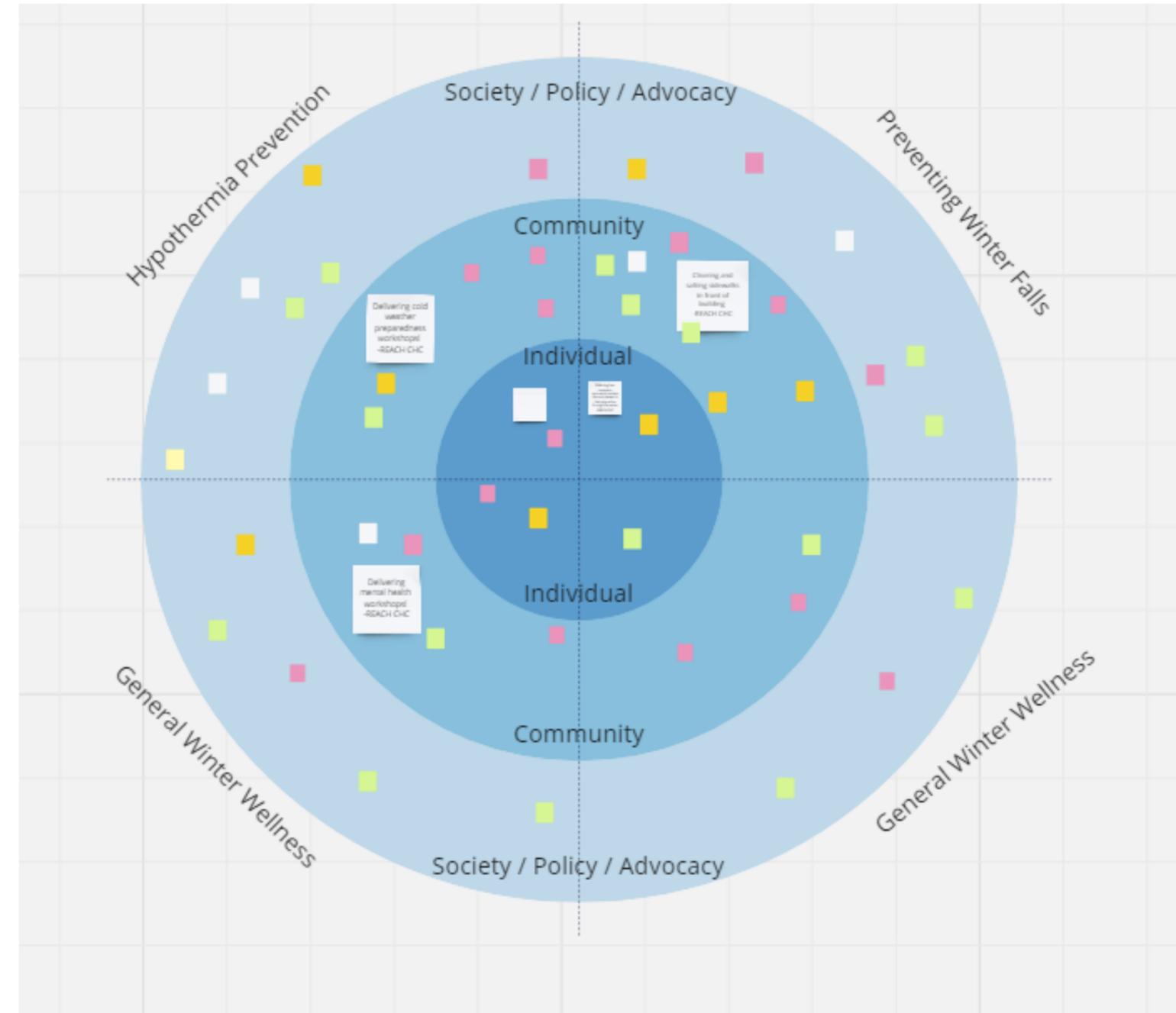
Full Body Chair Workout – Indigenous Sport BC

Recommended: 150 minutes of exercise every week

## ...Make a winter active living plan!



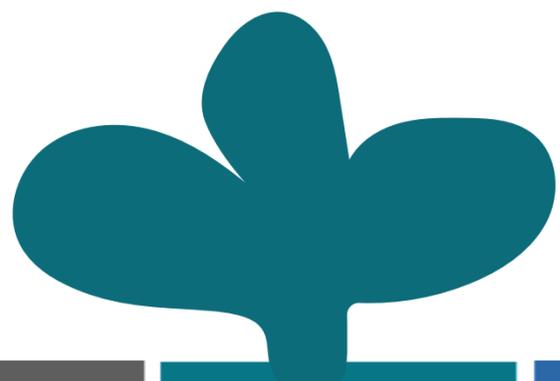
# How is your organization supporting the health of your communities this winter?





# Thank you!

Contact: [lperrett@reachcentre.bc.ca](mailto:lperrett@reachcentre.bc.ca)



# Additional References

- Cold weather safety for older adults. (n.d.). National Institute on Aging. <https://www.nia.nih.gov/health/cold-weather-safety-older-adults>
- Finding balance BC. (n.d.). Finding Balance BC. <https://findingbalancebc.ca/>
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- UpToDate. (n.d.). UpToDate. [https://www.uptodate.com/contents/accidental-hypothermia-in-adults?search=hypothermia&source=search\\_result&selectedTitle=1~150&usage\\_type=default&display\\_rank=1](https://www.uptodate.com/contents/accidental-hypothermia-in-adults?search=hypothermia&source=search_result&selectedTitle=1~150&usage_type=default&display_rank=1)