



# The Agricultural Health and Safety Network

WINTER 2022-2023 EDITION #52



UNIVERSITY OF SASKATCHEWAN  
Canadian Centre for Health  
and Safety in Agriculture  
CCHSA-CCSSMA.USASK.CA



CCHSA / CCSSMA



# NetworkNews

THE NETWORK providing agricultural occupational health and safety information and programs to Saskatchewan farm families since 1988.

## Winter Special Edition

Aches and pains can seem to be part and parcel of the physical labour of farm work. In this edition of the Network Newsletter we are excited to include our new Musculoskeletal Resource to help you manage and prevent musculoskeletal injury on the farm. Winter is great time to learn more about common musculoskeletal injuries, so come spring, we can be more proactive with a plan to stay injury free. If you are currently facing chronic musculoskeletal injury, this off season might be the opportune time to take steps to address these injuries. The ergonomics lab at the Canadian Centre for Health and Safety in Agriculture (CCHSA) has ongoing studies on different musculoskeletal injuries that may interest you. To learn more check out the next few pages!

Winter comes with other challenges on the farm particularly dealing with the weather and how to balance the needs of the farm while staying safe from the elements. With reduced day light hours and more time spent indoors can also come additional mental health challenges in the form of the winter blues or seasonal affective disorder, and when combined with a stress filled couple of years due to the COVID-19 pandemic things can seem overwhelming. The winter season

can be a time for reflection and acknowledgment of the past years' challenges, but also a time to look forward to a more productive year for yourself and your farm! Through mental health workshops or resources you may wish to explore how to develop resiliency in the face of farm challenges.

*The Network News*



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WINTER 2022-2023

# New Musculoskeletal Resource Highlights



The new MSD Resource is included with this edition of the Network Newsletter!

The focus of the Musculoskeletal Health and Safety in Agriculture Resource is on the prevention of musculoskeletal disorders (MSDs) in agricultural and rural workers through preventative strategies, risk identification, and best practices. Musculoskeletal injuries can creep up on us particularly on the farm where much of the work is physical in nature. With the time demands farmers face during busy seasons it is all too easy to put aches and pains on the back burner and power through. Research has shown that musculoskeletal disorders (MSDs) are a wide spread health problem in both the farming and non-farming populations. MSDs can result in long-term pain and suffering and are unfortunately extremely common in farmers. In fact over 90% of farmers are expected to experience some type of MSD in their lifetime. The repetitive motions, awkward postures, and heavy loads due to the demanding nature of farm work all contribute to the increased risk of development of MSDs. In Saskatchewan, 85% of farmers and farm workers report pain in at least one body part, with low back pain, shoulder pain, and neck pain emerging as the most common complaints.



Chiropractors' Association of Saskatchewan

**Special thank you to the Chiropractors' Association of Saskatchewan for assisting in supporting the printing and distribution of this resource to Saskatchewan farm families through the Agricultural Health and Safety Network.**

### The MSDs resource provides many benefits to farmers and rural workers:

- Increasing awareness of hazards on the farm that can impact farmer musculoskeletal health
- Educating farmers and agricultural workers in ergonomic best practices, exercises, and promotion of musculoskeletal health
- Preventing Musculoskeletal Disorders
- Improving quality of life for farmers in preventing and managing MSDs through decreased pain and increased strength
- Reducing costs due to injury and time away from work
- Increasing awareness of additional resources and treatments available in rural area

The Musculoskeletal Health and Ergonomics (MHE) Lab is a new research group based out of the Canadian Centre for Health and Safety in Agriculture Ergonomics Lab and led by Dr. Angelica Lang. The vision of the MHE Lab is to improve musculoskeletal health and quality of life of people globally, but with a focus on Saskatchewan. Recently, the MHE lab surveyed farmers across Saskatchewan to understand how their current pain or injuries influences their work. The Agricultural Health and Safety Network will be working with the MHE Lab to create best practices for farm families and agricultural workers using the recent survey as a starting point along with visits to Saskatchewan farms to measure motion during farm work to better understand injuries, prevention and best practices for return to work.

### How do time and rural residence affect upper limb biomechanical alterations in rotator cuff disease?

This newly funded project is investigating the movement and aspects of rotator cuff disease over time in both urban and rural residents of Saskatchewan. The project will be studying the effect of rural residence on musculoskeletal health in terms of social, occupational and health care access differences in comparison to urban residents.



# Do you have shoulder pain?

Researchers at the **University of Saskatchewan** are looking for **volunteers from rural Saskatchewan** with shoulder pain for at least the past 3 months to take part in a motion-tracking study of the upper limb.

As a participant in this study, you would be asked to complete a number of arm-focused tasks while your motion is tracked in our lab on the U of S campus. Your participation would involve 3 sessions, each 6 months apart, of approximately 2 hours. **You will be compensated for your time.**

**For more information, or to volunteer, please contact the Study Coordinator or the Principal Investigator:**

▶ **Study Coordinator**  
Lauryn Campbell  
Email: lmc683@mail.usask.ca

**Principal Investigator**  
Dr. Angelica Lang  
Email: angelica.lang@usask.ca  
Phone: 306-966-5544



BE WHAT THE WORLD NEEDS

## School of Rehabilitation Science & Canadian Centre for Health & Safety in Agriculture



# PARTICIPANTS NEEDED FOR RESEARCH IN FARM SAFETY

We are looking for **agricultural machinery operator volunteers** to take part in a study to evaluate on-farm strategies to reduce the negative effects of occupational vibration exposure.

As a participant you will be asked to take part in a series of in-field break activities during your normal daily work, use provided electronics to collect vibration exposure data, and complete a short safety habit survey.

Your participation would involve 1 day on-farm vibration exposure measurement and taking part in up to 3 break activities during your normal in-field working day. Break timing is flexible.

All activities and data collection will take place in-field.

**For more information or to volunteer for this study, please contact:**

Dr. Dena Burnett  
Post-Doctoral Researcher, School of Rehabilitation Science at  
306-241-8727 or Email: dena.burnett@usask.ca



This study has been approved by the University of Saskatchewan Biomedical Research Ethics Board

# The Weather Outside is Frightful: Working in Cold Weather



Farm chores don't stop because of extreme cold! It is important to have an awareness of how to stay safe when working outdoors in the sub-zero temperatures experienced during the winter months in Saskatchewan. Both frostbite and hypothermia can set in quickly and pose a serious risk to the health of those caught unawares or unprepared.

## Symptoms of Hypothermia

- Shivering
- Lack of coordination and fumbling hands
- Confusion
- Slurred speech
- Drowsiness
- Slowed breathing
- Memory loss

## Symptoms of Frostbite

- White or grayish-yellow skin area
- Skin that feels unusually firm or waxy
- Numbness



## Tips for Staying Safe While Working in the Cold

If you must work outside in extremely cold temperatures consider the following tips to help keep warm and safe:

- ▶ If your truck or tractor breaks down do not leave the vehicle to seek help, instead before setting out have a plan in place: let someone know where you are going and when you will be back and your intended route.
- ▶ Ask yourself: Are there tasks that can wait for a warmer day? Plan to minimize your exposure time and only set out to accomplish the tasks that are essential such as feeding or checking on livestock.
- ▶ If possible don't work alone in the cold, have a friend, family member or neighbour help out to make tasks go quicker and to provide help in case of an emergency.
- ▶ Bundle up! OSHA recommends wearing at least 3 layers:
  - Base layer
  - Insulating layer
  - Wind and water resistant layer
  - Never wear cotton in cold or wet weather instead opt for synthetic fabrics
- ▶ Prioritize keeping warm: add more breaks into your day and head inside frequently to warm up.
- ▶ Keep a safety toolbox with you that includes a headlamp, flashlight, two-way radio, first aid kit, blanket, high-protein snacks, and warm drink.

**Tip:** During the winter, clear a number of tracks around the farmyard, treat them with de-icing salt to keep safe walkways around the farmyard

Sources: <http://umash.umn.edu/farm-safety-check-working-in-the-cold/> and <https://www.cdc.gov/disasters/winter/staysafe/hypothermia.html>

# Winter BLUES

Article by: Craig Albert, 4th Year Medical Student, College of Medicine, University of Saskatchewan



## The winter blues – is it serious?

Living in Saskatchewan, you are no doubt aware of the progressive shortening of days as the weather cools down. During this time, some people may experience the 'winter blues'. Winter blues is not a medical term, but describes a common experience of lower mood during the colder months.

During this time, it's not uncommon to become less active and spend more time at home. In addition, the changes in daytime hours disrupts our body's natural sleep cycle, regulated by our 'master clock'. However, those experiencing a serious form of blues, called seasonal affective disorder or winter depression, may benefit from treatment.

"I always get really down in the winter."

## What is seasonal affective disorder?

Seasonal affective disorder is a group of mood disorders that peak during a particular time of the year. Winter depression is a type of seasonal affective disorder that peaks in the colder months, goes away in the spring or summer, and returns the following year. Common symptoms might include low energy during the day, persistent low mood, not wanting to engage in activities, spending too much time in bed, and having cravings for foods high in carbohydrates. Winter depression, unlike winter blues, persists for longer than 2 weeks, and has an impact on your day-to-day function.

## How can seasonal affective disorder be treated?

If you're experiencing a recurring pattern depression that peaks in the winter, the first step is talking with your doctor. Following an evaluation, your doctor may discuss several options for therapy. With any form of depression, therapy and medications can work together to help restore your mood and prevent recurrence. If there is a seasonal component to depression, light therapy may be used in conjunction to the standard treatment.

Light therapy is carried out using a bright artificial light box, telling the brain it's still daytime even though the sun is down. This can be carried out in the evening but is most effective in the morning. An alternate form of light-therapy is dawn simulation. In dawn stimulation, a dim red light that mimics the sunrise is emitted during the early hours of the morning, telling the brain the day is starting. Both forms of light-based therapy can be a helpful tool for restoring the body's 'master clock', restoring the sleep cycle and improving symptoms of seasonal depression.

## TIPS PREVENTING FALLS ON ICE



### 1. Walk like a penguin

- Keep your feet underneath your body to maintain balance
- Keep your knees loose
- Extend your arms to your sides to help you maintain balance
- Point your feet outward when walking, not straight ahead
- Take small steps - more shuffling than lifting of your feet
- Avoid wide or long steps

### 2. Wear appropriate footwear

- Non-slip soles with deep treads
- Coils and chains for moderate icy patches
- Spikes and crampons for ice over deep snow



Source: [https://gpcch.public-health.uiowa.edu/wp-content/uploads/2019/12/Fall-TrifoldOct18\\_NW\\_changes\\_accepted.pdf](https://gpcch.public-health.uiowa.edu/wp-content/uploads/2019/12/Fall-TrifoldOct18_NW_changes_accepted.pdf)

# Take a Break from the Shake

That's right! Something as simple as taking a break during your workday can help reduce some of the negative effects from whole-body vibration (WBV) when operating farm machinery.

Learn more inside about some of the risks of WBV, along with practical tools and strategies to help reduce the adverse health effects.

**Get up and move!**

## Shaken, not stirred

Whole body vibration (WBV) is known to be associated with back and hip disorders, but it can also contribute to the risk of falls and collisions (accidents).

The short-term effects of WBV include:

- Cognitive impairment (memory difficulties, for example)
- Stress
- Loss of balance
- Reduced sense of body position and self-movement
- Reduced sensory and motor responses

With long-term exposure to WBV, the effects are cumulative and can contribute to the development or aggravation of low-back injuries.

## WBV Risks

### Additional Resources

Scan the QR codes with your phone camera

Gov. of Ontario



CCOHS



EU - OSHA



**Dr Dena Burnett**

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306-241-8727



Canadian Centre for Health and Safety in Agriculture

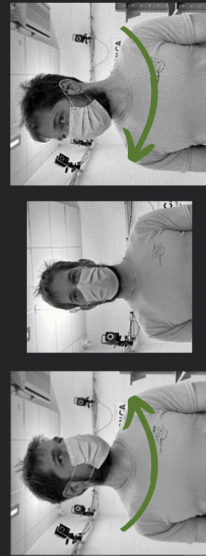
aghealthandsafety@usask.ca

This resource was made possible by the Canadian Agricultural Safety Association and the Canadian Agricultural Partnership.

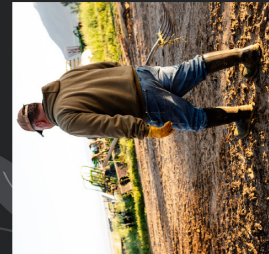


### Gaze Stabilization Exercises

Move your head and neck, at your own pace, while maintaining eye contact with a fixed point.



### Stretching or exercise breaks



Provide the musculoskeletal system time to recover.

Help reduce some cumulative effects of vibration energy.

It's easy to include simple activities to improve your health during your workday!



## Tools and Strategies

### What can you do?

As producers, you need to operate farm machinery and often for long periods of time. There is no way to completely eliminate the hazard of whole body vibration (WBV) in agriculture, but there are ways to reduce your risk of exposure and injury when spending long days operating machinery.

The research team at the University of Saskatchewan Ergonomics lab have developed dedicated activities to help you make the most of your rest break!

### Dedicated rest break activities

There are also many habits that can be integrated in your workday to help you get moving and reduce your exposure to vibration. Check out these simple tips and tricks!

### Tips and Tricks



### Check your equipment

- Regularly inspect your tractor or combine.
- Help avoid breakdowns.
- Added benefit of physical movement!

### Get out of that cab!

- Walk to get your lunch.
- Go on foot instead of using the 4-wheeler.

### When should you take a break?

- Based on field studies, researchers recommend maximum levels of vibration exposure when operating a tractor, combine or any large equipment:



# Trends in Work-Related Fatal Farm Injuries in Saskatchewan 2005 - 2019

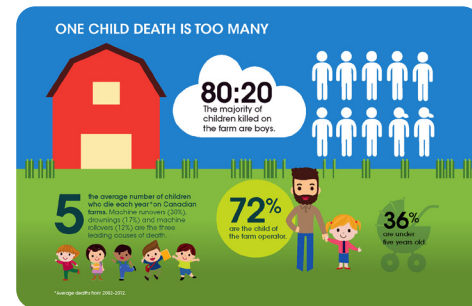


A recent article published in November 2022 by the Canadian Centre for Health and Safety in Agriculture highlights key factors in fatalities in agriculture across Saskatchewan.

There are **34,523 farms** in Saskatchewan comprised of some **93,925 farm residents**. This represents **8.8% of the population** in Saskatchewan!

## Leading Causes of Fatality on Saskatchewan Farms

- Farm machinery rollovers
- Vehicular collisions
- Entanglement/entrapment by equipment or machinery
- Impact with moving or falling objects
- Falls
- Animal related incidents
- Electrocuting



### FARM FATALITIES IN SASKATCHEWAN BY THE NUMBERS

Included in the data set for this study were fatalities that occurred off the farm or ranch but involved an agricultural activity such as transporting crops or machinery.

- 2005 – 2019 = 166 farm work related fatalities
- 94% of fatalities were men
- Average age = 53 years (both genders)
- Average fatality rate = 10.5 fatalities per 100,000 farm population
- 10 fatalities were reported in children less 15 years old
- Rollovers are the leading cause of death in both children (30%) and elderly (15%)
- Tractors are the leading cause of fatality in all age groups
- 73 % of fatalities occurred at the site of injury (before transport or arrival at hospital)
- 41% of fatalities family members were the first to find the injured individual

YOUR FARM YOUR FAMILY YOUR SUCCESS

# SAFETY is our promise

agsafetyweek.ca // March 12-18, 2023

Commit to #FarmSafetyEveryday



# Highlights: National Survey on Farmers Mental Health



Source: <https://news.uoguelph.ca/2022/06/farmer-mental-health-in-canada-worsened-during-pandemic-u-of-g-research-finds/>

In a recent study researchers at the University of Guelph analyzed the responses of 1,200 Canadian farmers looking at mental health. The results of the study emphasized that farmers continue to suffer from higher rates of mental health challenges compared to the rest of the national population and compared to five years prior farmers have an increased worsening in mental health.

Farmers face an infinite number of stressors including weather, animal or crop diseases, commodity prices, financial insecurity, and many more. These stressors contribute to higher levels of overall stress, anxiety and emotional exhaustion among the farming population. 76% of farmers surveyed responded that they were currently experiencing moderate or high perceived stress. The survey was conducted at the time of the 2nd wave of COVID when stress, anxiety, and depression were high across the country. The pandemic piled on additional stressors for farmers including increased costs, supply chain uncertainty, and public scrutiny.

**Women’s Mental Health:** The results of the recent survey highlight that women in particular face additional mental health challenges on Canadian farms and were reported to have higher stress and mental health problems. Interestingly, in the prior survey in 2015-2016 a similar result was found. The stress experienced by women on the farm stems from “role conflict” as women often have responsibilities both on and off the farm.

Healthy coping techniques are a key part of managing stress especially as farmers experience higher levels of stress. However, many farmers – both men and women- surveyed reported problematic coping mechanisms including social withdrawal, sleeping more, changing eating patterns, using alcohol and self-blame.

It shouldn’t come as a surprise that farmers are facing increased stress levels and mental health challenges as the pandemic and increasing global issues impact farming processes at all levels. Many studies have demonstrated that farmers are less likely than non-farmers to seek help for their mental health for a variety of reasons including limited access to care due residing in rural and remote areas, stigma, and more. One key insight to helping provide mental health services to farming populations is for providers to have a strong background and understanding of farming and the realities farmers face. “In the Know” is a mental health program designed to meet this need for farmers and is being offered in Saskatchewan starting January 27, 2023 with more sessions to be offered in February and March! If you are interested please check our website for dates and to sign up.



When: January 27, 2023  
Time: 9:30 am - 2:30 pm

IMPROVING KNOWLEDGE OF MENTAL HEALTH ■ REDUCING STIGMA IN RURAL COMMUNITIES

The workshop was developed for farmers by farmers in response to the first National Farmers Mental Health Survey. The results of the second national survey, 2021 Survey of Farmer Mental Health in Canada have been released and due to the COVID 19 pandemic, mental health in agriculture is declining and training like this workshop is essential.

### ABOUT THE WORKSHOP:

Farmers are reported to experience mental illness at higher rates than the general population and rural residents who do not farm and are less likely than non-farmers to seek help for their mental health.

In The Know is a 5-hour training interactive session with slides, discussion, handouts, visual aids, and the use of scenarios. The use of pre and post surveys for the training allows the program to stay current and address any barriers users may experience before, during, and after training. Participants will be able to:

- Identify the signs and symptoms of those in distress
- Have the confidence to start a conversation about mental health
- Learn to support other farmers and yourself at this mental health literacy program for farmers and the agricultural community

The workshop is delivered by a facilitator and cofacilitator both with agricultural background so participants do not need to explain their specific challenges before asking questions and sharing experiences

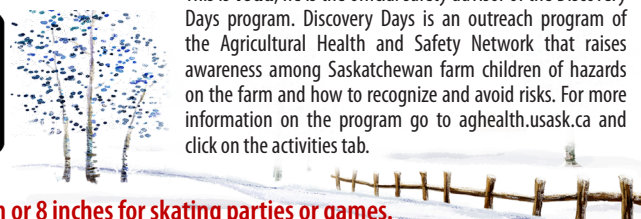
**JOIN US!** Virtually using your computer, tablet, or phone

[CLICK TO REGISTER](#) OR E-MAIL: [shs954@mail.usask.ca](mailto:shs954@mail.usask.ca)





**Hey Kids!** Be Careful on sloughs and ponds in the winter. Have an adult check the ice thickness before you go on.

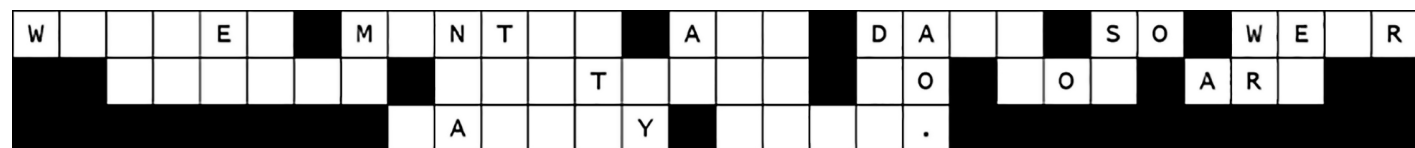


This is **Todd**, he is the official safety advisor of the Discovery Days program. Discovery Days is an outreach program of the Agricultural Health and Safety Network that raises awareness among Saskatchewan farm children of hazards on the farm and how to recognize and avoid risks. For more information on the program go to [aghealth.usask.ca](http://aghealth.usask.ca) and click on the activities tab.

Make sure ice is 15cm or 6 inches thick for walking or skating or 20cm or 8 inches for skating parties or games.

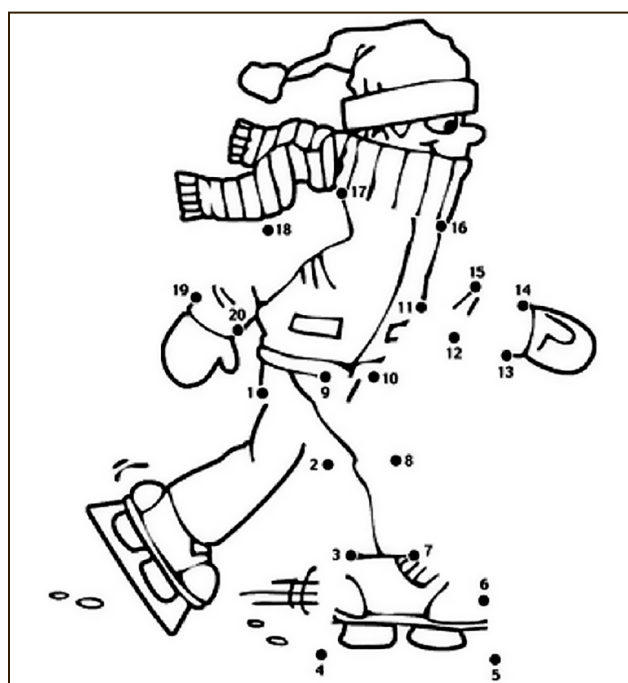
### Winter Safety - DECODE THE MESSAGE

Decode the following message. Use all the letters below the boxes to try and figure out the Winter Safety Message.



O S E  
N R G E L I L N G S Y  
I B T I R H T O C S H S H I R E E N R K U E A

### Connect the DOTS...



**QUESTION:**  
WHAT FALLS DOWN IN WINTER BUT DOESN'T GET HURT?



**ANSWERS:**  
Answer to "What falls down in winter but doesn't get hurt?"  
WINTER MONTHS ARE DARK SO WEAR BRIGHT CLOTHING SO YOU ARE EASILY SEEN.  
MONS



## High Blood Pressure & Stroke

Source: <https://www.heartandstroke.ca/heart-disease/risk-and-prevention/condition-risk-factors/high-blood-pressure>



**N**ew Year, New Me?! Did you set a health related goal for 2023? Taking steps to stay healthy can start anytime and make a big difference in preventing heart disease and stroke. Risk factors for heart disease and stroke can be divided into lifestyle risk factors, those that are under your control, and conditions risk factors that are important to monitor and be aware of and require appropriate treatment.

#### Lifestyle Risk Factors

- ♥ Unhealthy diet
- ♥ Physical inactivity
- ♥ Unhealthy weight
- ♥ Smoking
- ♥ Stress
- ♥ Excessive alcohol & drug abuse

#### Condition Risk Factors

- ♥ High blood pressure
- ♥ High cholesterol
- ♥ Diabetes
- ♥ Atrial fibrillation
- ♥ Vascular cognitive impairment such as vascular dementia

A word on high blood pressure! Chances are you or someone you know suffers from high blood pressure - 1 in 5 Canadians have high blood pressure or hypertension. High blood pressure is the #1 risk factor for stroke and a major risk factor for heart disease. Regularly having your blood pressure checked by a healthcare provider is a key step to ensuring you are keeping your blood pressure in check. Many pharmacies have blood pressure machines – sphygmomanometer – available to check your own blood pressure, or you can get your own at home monitor. Keep in mind that one high reading is not necessarily indicative of high blood pressure, check your blood pressure at least two more times on separate days to determine if you blood pressure is consistently high. There are many factors that can contribute to high blood pressure like the factors for stroke and heart disease some are in your control (diet, activity, lifestyle choices) and others are not (diabetes, genetics). There is a lot you can do to take control of you blood pressure including mitigating your lifestyle risk factors through healthy diet, physical activity, managing stress and moderating alcohol intake.

For more information visit [heartandstroke.ca](http://heartandstroke.ca).

#### Blood Pressure Risk Table

CATEGORY	SYSTOLIC/DIASTOLIC
LOW RISK	120 / 80
MEDIUM RISK	121-134 / 80-84
HIGH RISK	135+ / 85+

According to the Heart and Stroke Foundation almost **80%** of premature stroke and heart disease **can be prevented** through healthy behaviours.

**F**ace is it drooping?  
**A**rms can you raise both?  
**S**peech is it slurred or jumbled?  
**T**ime to call 9-1-1 right away.

Act **FAST**. Lifesaving treatment begins the second you call 9-1-1.

© Heart and Stroke Foundation of Canada, 2021.

Strokes can happen to anyone of any age at any time, if you suspect someone is having a stroke follow the **FAST** acronym to quickly check for positive symptoms of stroke and call **9-1-1**.

# ONE 2ONE

RESPIRATORY & HEARING  
CLINICS FOR FARMERS

CONTACT 306-966-6644  
IF INTERESTED IN BOOKING AN APPOINTMENT

One2One Hearing and Respiratory Clinics for farmers, offered in SK rural communities and at University of Saskatchewan.



## DO YOU KNOW SOMEONE WHO HAS DEVELOPED A FARM SAFETY INNOVATION?

If so we want to hear about it!  
Contact us with your story and innovation to be featured in our Network Newsletter.



**Need more information?**  
There are a variety of resources available online at:  
[agsafety.usask.ca](http://agsafety.usask.ca)

From the Editors: Send your ideas, comments and suggestions to the Network News

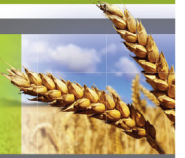


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Thank You to the Following Organizations for Supporting the Network News:



*Thank you*  
to the **Ministry of Agriculture** for their support!



IF YOU ARE EXPERIENCING SYMPTOMS OF STRESS, **THE FARM STRESS LINE** IS AVAILABLE 24/7 AT **1-800-667-4442**



Saskatchewan



Follow us on Social Media!

Twitter: @SaskAgSafety

Facebook: @AgricultureHealthSafetyNetwork

### Moved? Retired? Not Farming?

To remove your name from our mailing list call (306) 966-6644 or contact the editor.

Would you like regular email updates from the Network?

If so, email us at [aghealthandsafety@usask.ca](mailto:aghealthandsafety@usask.ca)