

# Changes in Thinking and Behaviour: Delirium



## Introduction

It can be frightening to witness a delirium. Watching a person all of a sudden behave strangely can be scary.

Delirium is not well understood. It may be difficult to recognize if you are not aware of what delirium is. You might find yourself asking questions such as:

- Why are they behaving this way?
- How do I know if this is a delirium?
- How is delirium different than dementia?
- What can I do to manage this now and prevent delirium in the future?

This chapter may help you answer these questions. By applying, and adapting the strategies in this chapter, you can help recognize changes in thinking and behaviour in the person you care for and know what to do about delirium.

## A Myth about Delirium

**X** *Becoming confused and forgetful is part of the natural process of aging.*

Contrary to popular belief, confusion and forgetfulness should not be considered part of the natural process of aging. Confusion is often a sign of something else going on and should be discussed with a health care professional as early as the symptoms are noticed.

**Delirium** is a term that describes a new, sudden change in a person's ability to think, remember and understand what is going on around them. A person who is delirious may appear confused, disorganized, hyper, frightened, forgetful, and suspicious of other people.

In a delirium, people may also hallucinate (e.g. tell you that they see people/objects/animals that are not there). Delirium is typically caused by something else going on in the body (infection, withdrawal, sleep deprivation, severe pain, shock, etc.). Delirium can usually be treated as long as the cause of the delirium is determined quickly and treated properly (e.g. taking antibiotics for an infection).

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Delirium is different than dementia. This chapter will help you tell the difference between these two conditions. The chapter will touch briefly on dementia, and focus mostly on the topic of delirium. If you are interested in learning more about dementia, there are a number of excellent resources which can be found in the [how do I find additional supports related to dementia](#) section of this chapter.

*The information in this chapter is not intended to replace the advice of a qualified health care professional. Please consult your health care professional for advice about specific medical conditions. Look for our [helpful tips on communicating with health care professionals](#).*

#### Facts about Delirium

#### **Did You Know?**

#### **Delirium is:**

- A medical emergency.
- Reversible if the cause is found and treated.
- Very common and even more so in the hospital setting.
- Can happen to people of all ages.
- Is often mistaken for dementia and can go unrecognized because of this.
- Can last a few days to a few weeks.

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*"My wife started a new medication and then, all of a sudden, it was like she was a different person. She couldn't remember any of my instructions and she was up all night walking around the house. She was acting very strange and it was frightening! The doctor stopped the new medication and she went back to being herself. I later found out that she had developed a delirium from the new medications she was taking."*

– A caregiver from  
Kingston, ON

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## The Difference between Delirium and Dementia

Many people are more familiar with dementia than delirium and often do not understand the difference between the two terms.

**Dementia** is a term that describes changes to a person's ability to independently interact with the world around them as a result of changes happening in their brain.<sup>16</sup>

The brain is the power house driving a person's ability to interact with the world around them. A person's abilities may be altered or weakened, depending on where in the brain changes are occurring. The result may be that a person becomes dependent on others for day to day routine tasks to stay safe.

Dementia can result in changes to memory, language ability, social skills, driving, daily activities (e.g. bathing, dressing) and ability to manage finances. These changes start to show slowly and do not happen overnight. There are many types of dementia; dementia of the Alzheimer type is the most common.

Below is a table that describes the most common differences between delirium and dementia.<sup>17</sup>

Delirium	Dementia
<ul style="list-style-type: none"> <li>• Comes on very quickly (within hours or days)</li> <li>• Changes in mental status, or sudden onset of confusion.</li> <li>• Caused by something else going on in the body (e.g. dehydration, infection, shock, sleep deprivation, etc.)</li> <li>• Often the person can go back to being themselves if the cause is determined and treated.</li> </ul>	<ul style="list-style-type: none"> <li>• Develops slowly (over months or years)</li> <li>• Changes in a person's ability to interact with the world around them independently.</li> <li>• Caused by changes to different areas of the brain.</li> <li>• Although the symptoms can be slowed down in some cases, typically the person cannot return to normal functioning. Dementia is irreversible.</li> </ul>

<sup>16</sup> Family Caregiver Alliance, National Centre on Caregiving. (2019). Caregiver resources, dementia. Retrieved from: <https://www.caregiver.org/health-issues/dementia>

<sup>17</sup> Registered Nurses Association of Ontario. (2016). *Delirium, dementia and depression: What is the difference?* Retrieved from: [https://rnao.ca/sites/rnao-ca/files/HEFS\\_Delirium\\_dementia\\_and\\_depression\\_What\\_is\\_the\\_difference\\_0.pdf](https://rnao.ca/sites/rnao-ca/files/HEFS_Delirium_dementia_and_depression_What_is_the_difference_0.pdf)

## Recognize Delirium

### How do you recognize delirium in the person you are caring for?

Delirium is complicated and is experienced differently by different people. This is one of the reasons that delirium is so hard to recognize. The first step to recognizing delirium is to understand what to look for. Consider the following list of common signs and symptoms.<sup>18</sup>

What is New	What You May Notice	What This Might Look Like
<b>Sudden Change in Thinking and Behaviour</b>	<ul style="list-style-type: none"> <li>• All of a sudden the person you care for is thinking and behaving very differently from their usual self.</li> <li>• Unpredictable mood changes from one moment to the next.</li> </ul>	<ul style="list-style-type: none"> <li>• Personality and behavioural change of the person you are caring for unlike anything you have ever seen in them before.</li> <li>• An active person sleeping all day long.</li> <li>• A quiet person yelling out and unable to settle down.</li> <li>• An independent person all of a sudden unable to get their daily tasks done (e.g. bathing, dressing, cooking, feeding their</li> </ul>
<b>Difficulty Concentrating</b>	<ul style="list-style-type: none"> <li>• The person is not able to focus.</li> <li>• May be distracted by sounds or moving objects.</li> </ul>	<ul style="list-style-type: none"> <li>• Darting their eyes from place to place.</li> <li>• Restlessness.</li> <li>• Unable to follow along in conversation.</li> </ul>

<sup>18</sup> Mayo Clinic. (2018). Delirium. Retrieved from: <https://www.mayoclinic.org/diseasesconditions/delirium/symptoms-causes/syc-20371386?p=1>.



What is New	What You May Notice	What This Might Look Like
<b>Disorganized Thinking</b>	<ul style="list-style-type: none"> <li>• They have difficulty answering a simple question because they seem confused.</li> <li>• The answer they give you does not make any sense.</li> <li>• What they are talking about is very unorganized.</li> </ul>	<ul style="list-style-type: none"> <li>• They may answer you by talking about something completely different to the subject.</li> <li>• They may speak in a very bizarre way about unrelated topics.</li> <li>• They may tell you that people are trying to harm them or they may be fearful of you.</li> <li>• For example, when asked to count backwards from 100, John said "100, 99, ...where's Mary? I've got to pick up the kids, where's Mary?!"</li> </ul>
<b>Poor Memory</b>	<ul style="list-style-type: none"> <li>• A person suddenly is very forgetful.</li> </ul>	<ul style="list-style-type: none"> <li>• A person may have difficulty remembering what their address is, the date, the year, the town they live in.</li> <li>• They may have difficulty remembering a conversation just minutes or hours before.</li> <li>• A person may not remember how and when to take medications or how to make their usual breakfast.</li> </ul>
<b>Altered Level of Consciousness</b>	<ul style="list-style-type: none"> <li>• A person is not as alert as their usual self.</li> </ul>	<ul style="list-style-type: none"> <li>• A person can appear highly hyper and excitable, unable to settle down or sleep, and restless.</li> <li>• A person may also appear very drowsy and sleep for many more hours than their usual self.</li> <li>• A person may appear as though they are falling asleep during a conversation with them.</li> </ul>

What is New	What You May Notice	What This Might Look Like
<b>Hallucinations</b>	<ul style="list-style-type: none"> <li>A person may tell you that they see, feel, or hear things, people, and objects that are not there.</li> </ul>	<ul style="list-style-type: none"> <li>They may tell you that they see animals in the room, bugs on their clothes, people standing near them, etc.</li> <li>They may hear music playing in the room that is not really playing.</li> </ul>
<b>Moments of Clarity</b>	<ul style="list-style-type: none"> <li>A person experiences times of confusion and other times of clarity in the same day.</li> </ul>	<ul style="list-style-type: none"> <li>In the course of a day, a person may be their usual self and suddenly their conversation or actions are completely different to their usual behaviour.</li> </ul>

## Delirium Detection Questionnaire for Caregivers

If you are noticing any of the common signs and symptoms of delirium in the chart above, take a moment to complete the Delirium Detection Questionnaire for caregivers. This is a tool that will assist you to speak with a health care professional about the changes you are noticing and determine the next steps. [See Tool 7.1: Delirium Detection Questionnaire.](#)

### How does delirium get diagnosed?

As a caregiver, you may notice a sudden change in a person before anyone else. The diagnosis of delirium comes from a health care professional and this is the first step to determining cause and treatment.

- This is done by visiting a health care professional that already has a trusted relationship with you and the person you are caring for (e.g. family doctor or nurse practitioner).
- This professional will review the details of the sudden changes, the signs and symptoms you are noticing, and may want to perform tests to determine the cause of this change (e.g. a blood test to look for infection).
- Once the cause is determined, treatment can begin and the delirium will usually clear allowing the person to go back to thinking and behaving like their old self.



## Strategies to Manage Delirium

What to do if you suspect that the person you are caring for is in a delirium:

### Stay Calm.

- A person in a delirium can say strange things and they may answer questions incorrectly. This is not their fault. Try to remain patient and not argue with them if they are not making sense. Staying calm lessens feelings of anxiety and/or frustration for both you and the person experiencing a delirium.
- Saying things like, “I believe you” or “it’s going to be okay” may help calm their nerves. Let them know that you are with them and that they are safe, even if they are hallucinating. For example, rather than saying, “there are no snakes, you are hallucinating,” you could try saying something like, “I know you see snakes on the floor and that you are scared, but I am here with you and you are safe.”
- Talk to the person about delirium. It is okay to talk about it rather than pretend nothing is wrong. By letting them know you understand what is going on and you have a plan, you can decrease fear and anxiety. For example, “I can tell you are not feeling well. It’s okay. You are safe and we are going to figure this out together.”
- Give very simple directions. Long explanations may be difficult to understand when experiencing a delirium. For example, you could give directions like, “eat this,” or “drink this,” or “follow me,” in a calm voice.

### Common Causes and Risk Factors for Delirium

- Alcohol or other substance use disorders.
- Change of environment (hospital stay, new living arrangement).
- Constipation.
- Dehydration.
- Diagnosis of dementia.
- Infections.
- Over stimulation (e.g. too much noise, activity, or too many people).
- Poor nutrition.
- Some medications.
- Organ malfunction (pancreas, liver, lungs, etc.) are not functioning normally.
- Vision or hearing impairment
- Pain.

### **Create a Quiet and Familiar Environment.**

- If possible, have a familiar person stay with them so they are not alone.
- Limit noise, such as radio or television. You can try soothing music but turn it off if it causes agitation.
- Dim the lighting in the room. Shadows from bright lights can increase hallucinations.
- Ensure that the person is wearing their glasses, dentures and hearing aids. It is important that they can both communicate what they need and hear what you are saying.
- Encourage the Usual Routine:
- Encourage them to be as active as they normally would, safely indoors.
- Encourage them to eat and drink at mealtimes by offering simple meals and easy to eat foods. It is important to encourage good nutrition even if the person is not hungry or thirsty.

### **Seek Medical Attention as Soon as Possible.**

- Any suspected sudden change in mental status should be reported to a health care professional as soon as possible. The cause for the change needs to be determined.
- An assessment and diagnosis of delirium, as quickly as possible, will lead to a proper plan of treatment and action.
- Ideally, you would connect as soon as possible with a trusted health care professional who is aware of the person's health history. However, if this is not possible, seek medical attention from your closest medical facility (walk-in-clinic, emergency department, etc.).





The following table is a list of strategies that can help manage and prevent delirium. For a one-page tool, outlining these strategies, see [Tool 7.2: Strategies to Manage and Prevent Delirium](#).

Strategies to Manage and Prevent Delirium <sup>19</sup>	
<b>Stimulate the Mind</b>	Promote daily socializing, reading, listening to music, brain games (crossword, puzzles, etc.), and friendly conversations about daily news and events.
<b>Get Moving</b>	Encourage the person to stay as active as their abilities allow (try for at least three times each day).
<b>Promote Healthy Sleep</b>	Use a bedtime routine or other technique that promotes a good night sleep (e.g. turn off electronics an hour before bed, put on soothing music, read a book, enjoy a sleep-tea, have a warm bath, make sure the room is cool, dark and comfortable).
<b>Confirm Seeing and Hearing</b>	Ensure a person has their hearing aids and glasses on (if needed) and that they are working properly.
<b>Stay Hydrated</b>	Provide fluids throughout the day to prevent dehydration.
<b>Eat</b>	Make food available throughout the day, and enjoy meal times together (if possible).
<b>Take Medications as Prescribed</b>	Keep an up-to-date medication list and tracking system. Use a chart or dosette box to organize medications. Blisterpacks can be obtained from your pharmacy with pills already organized. (See Medication Management for more information).
<b>Ensure Regular Bowel Movements</b>	One of the most common causes of delirium is constipation. Ensure the person is drinking fluids throughout the day, walking (at least three times a day), and having daily prunes or prune juice with breakfast. Try to establish a routine time for a bowel movement each day (often this can be after breakfast). A routine gentle laxative such as stool softener or one that helps the bowels to move may be helpful. Speak to a health care professional for if there is any difficulty having regular bowel movements.

<sup>19</sup> Adapted from RGP of Toronto. (2018). *SF7 Toolkit*. Retrieved from: <https://www.rgptoronto.ca/resources/>

## Helpful Tips to Communicate with Health Care Professionals

A challenge faced by caregivers is how to communicate with health care professionals about delirium. Delirium is so complex that it can be missed or unrecognized by health care professionals. It's important to be prepared to speak with health care professionals so that they can provide help by offering recommendations, strategies, or other forms of assistance.

The following are some helpful tips on how to communicate with health care professionals:

### Offer detail.

- Use the list of [common signs and symptoms](#) to explain what sudden changes you are noticing.
- Bring your completed Delirium Detection Questionnaire (See [Tool 7.1: Delirium Detection Questionnaire](#)).
- Bring a complete list of all medications, including over the counter medications, with their dosages and the bottles/packages.
- Be prepared to answer the following questions that the health care professional may ask you:
  - What changes are you noticing? How is this different than the usual?
  - When did you notice this change?
  - Has this ever happened before? When and if possible, why?
  - Have they taken any new medications prescribed or have there been changes to their usual medications? What medications and if possible, why?
- Beyond explaining who you are and the relationship you have with the person, offer details about your caregiving role, and the support you provide.

### Ask questions.

Is there anything more I should be doing to manage this delirium?

- The health care professional may offer treatment and or additional strategies for you to use.



## What should I do if delirium reoccurs?

- The health care professional may recommend what to do and where to go if you notice delirium occurring again. They may recommend different places to seek help depending on certain signs and symptoms (e.g. their clinic, a walk-in-clinic, or emergency department).

## What supports are available in the community for someone with delirium?

- Health care professionals should know about geriatric teams, and community programs that can support delirium management in your area. They will be able to tell you and the person you care for about these services and if they think a referral is needed and how they may want to support ongoing care after a diagnosis of delirium is made.

## Finding Additional Support

How do I find additional support related to delirium?

### Ask a health care professional.

- There is not one way to navigate the health care system. It is different depending on where you live in Ontario and what services you may need. A health care professional will be able to recognize what local services may support you the best.

### Look online.

- You can search for more information about delirium by visiting the Canadian Safety Institute website: <https://www.patientsafetyinstitute.ca/en/Topic/Pages/Delirium.aspx>.

### Watch a video.

- You can watch a video from CBC's The National to understand more about how a person may experience delirium and a program that some hospitals have adopted to prevent delirium. You can watch it here: <https://www.cbc.ca/player/play/1189994563703>.

## How do I find additional support related to dementia?

This Handbook does not include a chapter about dementia. There are many resources devoted to teach caregivers about dementia. If you suspect that you might be dealing with dementia or are interested in learning more about dementia, consider the following list as a starting point.

- To learn more about dementia, how to care for a person living with dementia, and how to find help, visit the Alzheimer Society of Ontario website: <https://alzheimer.ca/en/on>.
- The Reitman Centre is a recognized leader in caring for the caregivers of people living with dementia. They provide services and support that benefit caregivers and individuals living with dementia. To learn more about the Reitman Centre and what they have to offer, visit their website at: <https://www.mountsinai.on.ca/care/psych/patient-programs/geriatric-psychiatry/dementia-support/>.
- IGerCare is a resource that provides educational information for individuals who are newly diagnosed with dementia or mild cognitive disorder, their families, caregivers and health care providers. Developed by experts in geriatrics and mental health at McMaster University. For easy to access and simple lessons that teach caregivers about dementia and brain health, review this free course. Understanding the complexity of dementia may help reduce stress and increase your quality of life. Start your lessons now by visiting: <https://igericare.healthhq.ca/lessons>.

## Summary

This chapter has offered information about delirium. You have reviewed some strategies to recognize and manage delirium. You are now more aware of the differences between delirium and dementia. You can start to develop your own strategies related to delirium and find additional support in your area.



## Tool 7.1: Delirium Detection Questionnaire<sup>20</sup>

This tool is a simple way for you to communicate what you are seeing to a health care professional. Review and complete the following table.

During your interaction with the person today, have you observed any of the following?	YES	NO
1. Altered level of awareness to the environment in any way different than being normally awake.	<input type="text" value="3"/>	<input type="text" value="0"/>
2. Reduced attentiveness; inability to focus on you during the interaction	<input type="text" value="4"/>	<input type="text" value="0"/>
3. Fluctuation in awareness and attentiveness, such as drifting in and out during an interaction or through the day.	<input type="text" value="3"/>	<input type="text" value="0"/>
4. Disordered thinking; the response (whether verbal or action) is unrelated to the question or request.	<input type="text" value="3"/>	<input type="text" value="0"/>
5. Disorganized behaviour; purposeless, irrational, under-responsive or overresponsive to requests.	<input type="text" value="2"/>	<input type="text" value="0"/>
6. Unexplained impaired eating or drinking (excluding appetite); unable to perform the actions to feed oneself.	<input type="text" value="2"/>	<input type="text" value="0"/>
7. Unexplained difficulty with mobility or movement.	<input type="text" value="1"/>	<input type="text" value="0"/>
<b>Score</b>	<input type="text"/>	
Scoring information for health professional use:		
<b>Score</b>	<b>Predictive Value</b>	<b>Description</b>
4	89%	Possible delirium: evaluate potential medical causes, medications, substances, etc.
9	100%	Delirium: immediate medical evaluation required.

<sup>20</sup> Shulman, R. & Trillium Health Partners. (2014). *The Sour Seven: Delirium Detection Questionnaire for Caregivers*. Retrieved from: [https://static-content.springer.com/esm/art%3A10.1186%2Fs12877-016-0217-2/MediaObjects/12877\\_2016\\_217\\_MOESM1\\_ESM.pdf](https://static-content.springer.com/esm/art%3A10.1186%2Fs12877-016-0217-2/MediaObjects/12877_2016_217_MOESM1_ESM.pdf)

## Tool 7.2: Strategies to Manage and Prevent Delirium<sup>21</sup>

The following chart highlights strategies that caregivers can apply to prevent delirium in older adults.

Strategies to Manage and Prevent Delirium <sup>19</sup>	
<b>Stimulate the Mind</b>	Promote daily socializing, reading, listening to music, brain games (crossword, puzzles, etc.), and friendly conversations about daily news and events.
<b>Get Moving</b>	Encourage the person to stay as active as their abilities allow (try for at least three times each day).
<b>Promote Healthy Sleep</b>	Use a bedtime routine or other technique that promotes a good night sleep (e.g. turn off electronics an hour before bed, put on soothing music, read a book, enjoy a sleep-tea, have a warm bath, make sure the room is cool, dark and comfortable).
<b>Confirm Seeing and Hearing</b>	Ensure a person has their hearing aids and glasses on (if needed) and that they are working properly.
<b>Stay Hydrated</b>	Provide fluids throughout the day to prevent dehydration.
<b>Eat</b>	Make food available throughout the day, and enjoy meal times together (if possible).
<b>Take Medications as Prescribed</b>	Keep an up-to-date medication list and tracking system. Use a chart or dosette box to organize medications. Blisterpacks can be obtained from your pharmacy with pills already organized. (See Medication Management for more information).
<b>Ensure Regular Bowel Movements</b>	One of the most common causes of delirium is constipation. Ensure the person is drinking fluids throughout the day, walking (at least three times a day), and having daily prunes or prune juice with breakfast. Try to establish a routine time for a bowel movement each day (often this can be after breakfast). A routine gentle laxative such as stool softener or one that helps the bowels to move may be helpful. Speak to a health care professional for if there is any difficulty having regular bowel movements.

<sup>21</sup> Adapted from RGP of Toronto. (2018). SF7 Toolkit. Retrieved from: <https://www.rgptoronto.ca/resources/>



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For more information on the Senior Friendly Caregiver Education Project and the Regional Geriatric Programs of Ontario, please visit [www.rgps.on.ca/caregiving-strategies](http://www.rgps.on.ca/caregiving-strategies).

