



Canadian Stroke Network

Réseau canadien contre  
les accidents cérébrovasculaires

# Best Practice Nursing Care Across the Acute Stroke Continuum

## MODULE 1: Prevention of Stroke

### Facilitator Guide



VER 1.2 SEPT 2009

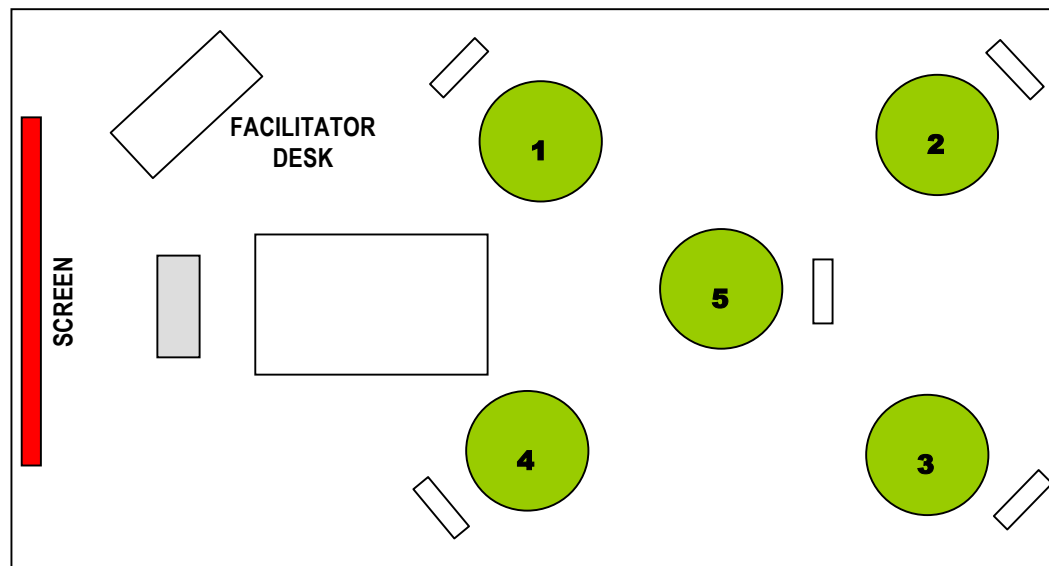


# Set Up and Preparation

## Classroom Set-up

The following is a recommended classroom set up:

- Round or half-round tables with a maximum of five participants per table, ensuring everyone a clear view of the screen and front of the class (do not place chairs along forward-facing edge of tables)
- Flipchart sheets on stands with coloured markers beside each table
- Laptop computer hooked up to LCD projector and screen for presentation-lecture activities
- Breakout area for demonstrations with volunteers
- Sufficient room between tables to reduce distraction between teams
- Door prizes/gifts for game winners



Materials per breakout table

- Canadian Stroke Strategy Best Practices and Standards - Canadian Best Practice Recommendations for Stroke Care 2008
- Faaast FAQs for Stroke Nurses 2007
- Other materials TBD

Prepare name cards in advance. This will encourage everyone to become familiar with their colleagues and allows you to pre-assign seating to ensure appropriate teams for the exercises. If participant names are not provided to you in advance, have blank name cards for them to complete at their tables

**IMPORTANT: Breakout team setup**

- If possible, before the workshop, determine experienced and novice participants in order to create mixed breakout groups in order to foster peer learning

Ensure that the room(s) will be set up in advance with tables and chairs arranged in the proper manner (see diagram previous page)

Determine how many participants will be in the class so that you can prepare the correct number of handouts.

Make sure all classroom supplies and equipment are ready and in good working condition (e.g., flip charts and markers, whiteboard markers and erasers, projector and necessary cables, etc.)

Other things to keep in mind:

- Respect one another's point of view.
- Use cell phones or other electronic devices only during breaks.
- Be on time at the start of workshop and after breaks.
- Do not talk over other people.
- Suspend computer and email use during workshop.
- Share openly with team members.

## **Workshop Management**

As part of workshop management, it is important to establish rules before the workshop begins. Engage the participants by allowing them to set the rules for the day. Let them brainstorm among themselves and then help to fill in the list. Participants like it better when they can contribute rather than being told what they can and cannot do. When they think they set the rules, they are more likely to follow them or at least not question them if a rule is broken.

## **Workshop Rules**

When presenting to a group of professionals:

- Learn and use names;
- Make and move eye contact (i.e., don't face the screen, or read from the book);
- Try to have a conversation with the participants (vs. a "formal" presentation or speech);
- Vary your pace and tone;
- Personalize the presentation to the audience's market, project, etc.; and
- Include personal and/or audience experiences.

It is also a good idea to have a contingency plan in case you experience equipment failure, for example. You should carry an extra copy of your presentation and participant guide files on a CD or flash drive, so you can use someone else's computer if necessary. Also, carry paper copies of your files in case the projector doesn't work.

### **Practice, Practice, Practice**

Effective facilitation requires a focus on the participants, and not on your presentation. This can best be accomplished by practicing to the point of familiarity and comfort with the presentation. As you practice, consider these tips:

- Practice out loud, using all the equipment you will actually use in the workshop;
- Have an audience (friends, family, coworkers);
- Videotape yourself, and review the tape for mannerisms, etc.; and
- Don't rush the practice – a good practice “run” through the program may last 25-50% as long as the actual workshop may take.

### **Presentation Tips**

Facilitating a workshop is like improvisational theater – you have an outline of what you plan to do, various materials and props, and objectives. But, you also interact with an “audience” and are focused on accomplishment of their and your objectives. The following tips will help you accomplish these objectives and make the workshop effective for the participants

### **Audience Analysis**

To the extent possible, try to determine in advance, or in conversation with the participants as they assemble for the workshop, the following information about them:

- Their past training, and experience with, the topics of the workshop;
- Their attitude about training in general, and this workshop in particular (i.e., are the “for” you or “against” you);
- What training techniques have worked, and failed, with them in the past;
- Why they are participating (e.g., interested, need the training, were ordered to attend, etc.)

### **Maintaining Focus**

It may be difficult to keep a group aligned and heading the same direction. The following techniques can be used to help them keep focused:

- Use names, especially of the people who are not focused;
- Point to something in the room;
- Summarize the imminent key points in advance
  - “Next, we’ll talk about...”
  - “Three reasons why this is critical are...”
- Give assignments
  - “In this next section, I’d like you to...”
  - “I’ll be asking you ...”
- Pay attention to how long it’s been since the last break. If it’s been much longer than 1-1.5 hours, it may be time for a short break.
- Keep the agenda flexible.

### **Avoiding Distractions**

The Workshop Rules you set will help you avoid distractions (cell phones, interruptions, etc.) But, you need to be careful about distractions you might accidentally create. In particular,

- Be careful about your use of jargon that the participants might not understand; review your presentation in advance, and cover the jargon you plan to use when you begin the workshop;
- Study your practice videotapes, or ask friends, for any words or phrases you might overuse when speaking and try to reduce their usage;
  - Examples: “Ummm”, “Know what I mean?”, “At the end of the day...”
- Empty your pockets, so you don’t jingle coins, keys, etc.;
- Turn your cell phone off; and
- If you’re using a remote control, practice using it in advance, put in fresh batteries (and carry a spare set), and pick and use a particular place where you’ll set it when not in use (and where you’ll always be able to quickly find it when you

need it!).

### **Questions**

When asking questions,

- Wait for answers, even if it's a bit uncomfortable for a few seconds;
- If no one answers, you can
  - Make, and hold, eye contact with a participant;
  - Ask someone to answer, by name;
  - Approach someone; or
  - Use a provocation such as “Many people would answer this question as follows “.....” do you agree? What do you think of their answer?”
- Ask questions that require opinions, so participants don't worry about giving the wrong answer and being embarrassed;
- Do not tell someone they gave the wrong answer – they might not speak again in the workshop; a more diplomatic way to handle this situation is to say “I see. Many people answer this same question .....” and give the right answer.

When receiving questions, you can

- answer the question if you can;
- reflect the question back to the participants, to let them answer;
- poll the participants on several possible answers to the question; or
- if you don't know the answer, use one of the latter two responses, or admit you don't know but will find out and respond.

### **Handling Difficult Situations**

Things don't always go smoothly. For a variety of reasons, you might encounter the following difficult situations. If you do, consider the suggested solutions.

#### ***Difficult Situation***

#### ***Solutions***

- |  |  |
|--|--|
| 1. Questions are asked before you get to that topic.                   | Give a very brief answer. Mention that you'll cover it in more depth later. Ask if that's okay for now.                              |
| 2. There are side conversations; people are not paying attention.      | Ask what questions people have. Pause, or soften your voice. Approach the people having the conversation, or call them by name.      |
| 3. There is a self-proclaimed "expert" who's disruptive.               | Compliment them, and enlist their help when you ask for it. (You might want to enlist this help before the workshop, or in a break.) |
| 4. Someone is a "heckler" who's intentionally disrupting the workshop. | Enlist the audience (especially coworkers) to quiet them down.   |

### **Emergency Kit**

Most facilitators have, at one time or another, wished they had packed an extra small bag containing the following items:

- Bottle of water;
- Their CD or flash drive with a backup copy of their workshop files;
- Paper copy of the presentation and participant guide;
- Extension cord with enough outlets for all electrical equipment;
- Medicine for headaches or allergy/cold/flu symptoms;
- Bandages and antiseptic;
- Hand wash;
- Markers, tape, etc.; and

Consider this as your Facilitator's Emergency Kit!

# Introduction

15 min



Action	Time	Resources Needed
<b>Introduction – 15 min TOTAL</b>		
1. Display <u>Module 1</u> title slide as participants walk in	1 min	Slide 1
2. When ready to begin, display <u>Welcome</u> and review the structure and focus of the module	1 min	Slide 2
3. Display <u>Expectations?</u> and ask participants what <u>they</u> want to get out of this module	2 min	Slide 3
4. Record expectations on your flipchart at front of class		
5. Display <u>Objectives</u> to bridge to module objectives.	1 min	Slide 4



Action	Time	Resources Needed
<p><b>Objectives</b></p> <ol style="list-style-type: none"> <li>1. Review key objectives of this module, telling participants that their own expectations will also be addressed during the day</li> <li>2. Display <u>Agenda</u> and review key sections of this module</li> <li>3. Display <u>Continuum of Stroke Care</u> and position this module within the continuum (click twice to display yellow callout)                             <ul style="list-style-type: none"> <li>• <i>Stress that prevention of stroke plays a role across all stages of the stroke care continuum</i></li> </ul> </li> <li>4. Display <u>Why Is This Important?</u> and review the importance of stroke prevention</li> <li>5. Display <u>Stroke 101</u> to bridge to this new section (optional section for audiences without previous knowledge of stroke)</li> </ol>	<p>2 min</p> <p>2 min</p> <p>3 min</p> <p>2 min</p> <p>1 min</p>	<p>Slide 4</p> <p>Slide 5</p> <p>Slide 6</p> <p>Slide 8</p> <p>Slide 9</p>



# Stroke 101

15 min







# Impact & Cost of Stroke in Canada

20 min



Action	Time	Resources Needed
<p><b>Impact &amp; Cost of Stroke in Canada – 20 min TOTAL</b></p> <p><b>WHOLE GROUP ACTIVITY: Stroke Risk Round Up</b></p> <p><b>OBJECTIVE:</b> Review key facts and data about stroke in Canada while getting everyone to know each other.</p> <ol style="list-style-type: none"> <li>1. Display <u>Stroke Risk Round Up</u> to introduce this whole group activity and present the instructions:               <ol style="list-style-type: none"> <li>a. At the start of the session, everyone was given one Q Card and one A Card.</li> <li>b. A volunteer begins by reading out her Question card.</li> <li>c. The person who thinks she has the correct Answer card must wave it and read the answer aloud.</li> <li>d. If correct, it will be her turn to read out the next question on her Question card.</li> <li>e. If not correct, everyone must agree on the correct answer, then ask the person with that Answer card to read out her question.</li> <li>f. Play will continue in this manner until all questions have been read along with their correct answers.</li> </ol> </li> <li>3. Display <u>Stroke Subtypes</u> to bridge to review of impact and cost of stroke.</li> </ol>	<p>10 min</p>	<p>Slide 11</p> <ul style="list-style-type: none"> <li>- See Appendix A for preparation instructions</li> <li>- Activity Q Cards and A Cards (see Appendix A)</li> <li>- Answers to the 15 questions (next page)</li> <li>- Prizes (optional)</li> </ul> <p>Slide 12</p>

## Stroke Risk Round Up

### QUESTION / ANSWER KEY

1. Approximately what percentage of stroke victims die of their stroke? **15%**
2. Approximately what percentage of stroke victims are left with moderate to severe disability? **30%**
3. What percentage of strokes are ischemic strokes? **80%**
4. What percentage of ischemic stroke victims make a full recovery? **25%**
5. How many new stroke patients are there in Canada every year? **50,000**
6. What percentage of stroke patients are under 65 years of age? **28%**
7. What is the chance of a recurrent event within 2 years? **20%**
8. True or False: Stroke is the leading cause of adult disability in Canada. **True**
9. Approximately how many more times at risk for stroke is a 20 or more cigarette a day smoker compared to a non-smoker? **2 to 4 times**
10. Hypertension is estimated to account for about what percentage of the population attributable risk for cerebrovascular disease? **60%**
11. Diabetes can increase the risk of stroke, especially in some younger subgroups, by up to how many times? **10 times**
12. True or False: Level 1 evidence indicates that stroke unit care reduces the likelihood of death and disability but only in male stroke victims. **False, it reduces likelihood in both men and women.**
13. Stroke guidelines recommend that t-PA be administered within what timeframe of ischemic stroke onset? **Within 3 hours.**
14. For every 100 patients receiving organized inpatient interdisciplinary rehab, how many returned home in an independent state? **5 patients**
15. Approximately how many stroke patients are spared a poor outcome when they receive community based stroke rehab services? **1 in 15 patients**

Action	Time	Resources Needed
<p><b>Review Impact &amp; Cost of Stroke</b></p> <ol style="list-style-type: none"> <li>Review key points about the impact and cost of stroke using the following set of slides:                             <ul style="list-style-type: none"> <li>- <i>Stroke Subtypes</i></li> <li>- <i>Outcome of Ischemic Stroke</i></li> <li>- <i>Epidemiology of Stroke</i></li> <li>- <i>Impact of Stroke in Canada</i></li> </ul> </li> <li>Display <u>Signs, Symptoms &amp; Risk Factors</u> to bridge to this new section</li> </ol>	<p>10 min</p>	<p>Slides 12 to 15</p> <p>Slide 16</p>



# Signs, Symptoms & Risk Factors

25 min



Action	Time	Resources Needed
<p><b>Signs &amp; Symptoms of Stroke – 25 min TOTAL</b></p> <p><b>ACTIVITY: STROKE JEOPARDY</b></p> <p><b>OBJECTIVE:</b> To overview key facts about warning signs, symptoms and risk factors for stroke in a fun manner.</p> <ol style="list-style-type: none"> <li>1. Display <u>Stroke Jeopardy</u> and tell participants we are going to compete in a Jeopardy game to see which team is the Stroke Champion with respect to warning signs, symptoms and risk factors</li> <li>2. Click the <b><u>Press to Start Jeopardy</u></b> button to begin the game</li> <li>3. When done, declare a winning team and hand out optional prizes</li> <li>4. Display the following set of slides to review (recommend selecting a subset, depending on your audience): <ul style="list-style-type: none"> <li>- <b><i>Warning Signs of Stroke (2 slide)</i></b></li> <li>- <b><i>Left &amp; Right Hemisphere-Common Presentations</i></b></li> <li>- <b><i>Stroke Mimics</i></b></li> <li>- <b><i>Transient Ischemic Attacks: TIA (2 slides)</i></b></li> <li>- <b><i>Types of Stroke</i></b></li> <li>- <b><i>Classic Mechanism of TIA</i></b></li> <li>- <b><i>Carotid &amp; Vertebrobasilar Syndromes</i></b></li> <li>- <b><i>Lacunar Syndromes (2 slides)</i></b></li> <li>- <b><i>Dominant Left Hemisphere Stroke</i></b></li> <li>- <b><i>Non-Dominant Right Hemisphere Stroke</i></b></li> <li>- <b><i>Risk Factors</i></b></li> <li>- <b><i>Risk Factors: Hypertension (2 slides)</i></b></li> <li>- <b><i>CHEP Blood Pressure Guidelines</i></b></li> <li>- <b><i>Diabetes</i></b></li> <li>- <b><i>Risk Factors (4 slides)</i></b></li> <li>- <b><i>Stroke in Women</i></b></li> </ul> </li> <li>5. Display <u>Let's take a break...</u> and announce a 15 minute break.</li> </ol>	<p>15 min</p> <p>10 min</p> <p>15 min</p>	<p>Slide 17</p> <ul style="list-style-type: none"> <li>- Stroke Jeopardy game (embedded in PowerPoint)</li> </ul> <p>Slides 18 -39</p> <p>Slide 40</p>



# Canadian Stroke Strategy

15 min



Action	Time	Resources Needed
<b>Canadian Stroke Strategy – 15 min TOTAL</b>		
1. Display the following <u>Canadian Stroke Strategy</u> overview slides to introduce the Canadian Stroke Strategy: <ul style="list-style-type: none"> <li>- <i>Canadian Stroke Strategy (2)</i></li> <li>- <i>Canadian Stroke System Model</i></li> <li>- <i>Your Provincial Model (to be input locally)</i></li> <li>- <i>Canadian Stroke Strategy Best Practices &amp; Standards Platform</i></li> </ul>	5 min	Slides 42 – 46
2. Display <u>Best Practice Recommendations Dissemination</u> and review release strategy, publications and websites	4 min	Slide 47
3. Display <u>2008 Recommendations (2)</u> and review recommendations, focusing on those addressed in this module. Tell participants the others are addressed in other modules in this program.	5 min	Slides 48-49
4. Display <u>Recommendations for Public Awareness &amp; Patient Education</u> to bridge to this new section, telling participants we are now going to learn about the Best Practice Recommendations addressed in this module.	1 min	Slide 50



# Public Awareness & Patient Education

20 min



Action	Time	Resources Needed
<p><b>Public Awareness &amp; Patient Education – 30 min TOTAL</b></p>		
<p>1. Display overview slides <u>1.1 Public awareness and patient education</u>, then <u>1.2 Patient and family education</u> to overview these two recommendations as preparation for the activity to follow</p>	<p>4 min</p>	<p>Slides 51 - 52</p>
<p>2. Display <u>A Patient’s Guide to the Recommendations</u> and review the contents of the document and how to access it on the CSS website.</p>	<p>1 min</p>	<p>Slide 53</p>
<p>3. Display Patient and Family Education (2 slides) and review.</p>	<p>2 min</p>	<p>Slides 54 - 55</p>
<p>4. Display <u>Public Awareness &amp; Education Teachback (1)</u> to bridge to this group activity</p>		<p>Slide 56</p>
<p><b>GROUP ACTIVITY: Public Awareness &amp; Education Teachback</b></p>		
<p><b>OBJECTIVE:</b> To enhance participants’ understanding and retention of recommendations 1.1 and 1.2 and get participants thinking about their and their institution’s role in implementing them.</p>		
<p>1. Run Part 1 of this group activity</p> <ul style="list-style-type: none"> <li>a. We’ll split into two groups, each of which will prepare a “teachback” on one of these recommendations                             <ul style="list-style-type: none"> <li>i. Group 1: <u>1.1 Public awareness and responsiveness</u></li> <li>ii. Group 2: <u>1.2 Patient and family education</u></li> </ul> </li> <li>b. Use the worksheet in your PW to structure your “lesson”</li> <li>c. Then, select one or more “teachers” and teach your recommendation back to group</li> </ul>	<p>15 min</p>	<p>Slide 57</p>







# Recommendations for Prevention of Stroke

25 min







Action	Time	Resources Needed
<p><b>TABLE ACTIVITY: Recommendations Briefing</b></p> <p><b>OBJECTIVE:</b> To review key points from Prevention of Stroke and Public Awareness and Patient Education and discuss how these will improve stroke care and participants' role in implementing them.</p> <p>1. Run Part 1 of the Recommendations Briefing activity, telling participants to imagine they have been asked to brief their colleagues at home on one of the key sections in Prevention of Stroke or Public Awareness and Patient Education:</p> <ul style="list-style-type: none"> <li>a. Form two groups at your table and have each select and prepare a "briefing" on one of these sections</li> <li>b. Use the worksheet in your PW to help structure your briefing</li> <li>c. Focus on the following topics:                             <ul style="list-style-type: none"> <li>- Rationale for recommendation</li> <li>- System implications of it</li> <li>- Performance measures</li> </ul> </li> <li>d. When done, each group will present its briefing to the other and discuss</li> </ul>	<p>10 min</p>	<p>Slide 68</p>
<p>2. Display <u>Recommendations Briefing (2)</u> to introduce Part 2 of this table activity.</p>	<p>1 min</p>	<p>Slide 69</p>







# Patient and Family Education

15 min



Action	Time	Resources Needed
<p><b>Patient and Family Education – 15 min TOTAL</b></p> <p>1. Display <u>From the Patient and Family’s Perspective</u> cartoon (optional)</p> <p>2. Display <u>Where You Can Make a Difference</u> and introduce this table activity</p> <p><b>TABLE ACTIVITY: Where You Can Make a Difference!</b></p> <p><b>OBJECTIVE:</b> To get participants thinking about best practices for implementing patient/family education in their institutions.</p> <p>3. Review instructions and run this activity</p> <ul style="list-style-type: none"> <li>a. At your tables, discuss                             <ul style="list-style-type: none"> <li>- What approaches could you develop to ensure implementation of patient/family education?</li> </ul> </li> <li>b. When done, we'll debrief the whole group to identify some best practices</li> </ul> <p>4. Display <u>Check Up Quiz</u> to bridge to the Check Up Quiz activity.</p>	<p>1 min</p> <p>1 min</p> <p>10 min</p> <p>1 min</p>	<p>Slide 71</p> <p>Slide 72</p> <p>Slide 73</p>



Action	Time	Resources Needed
<p><b>QUIZ: Check Up Quiz – 5 min</b></p> <ol style="list-style-type: none"> <li>1. Display the Check Up Quiz question slides to run the quiz</li> <li>2. Display <u>Putting It All Together</u> to bridge to this new and final section.</li> </ol>	<p>5 min</p>	<p>Slides 74-82 Slide 83</p>



# Putting It All Together

30 min







Action	Time	Resources Needed
<p><b>INDIVIDUAL ACTIVITY: Creating a Stroke Care Action Plan</b></p> <p><b>OBJECTIVE:</b> To maximize transfer back to the job by having participants take away an action plan they can begin to implement.</p> <p>1. Run the Creating a Stroke Care Action Plan activity</p> <p>a. With the case study we just reviewed in mind, create a stroke care action plan</p> <ul style="list-style-type: none"> <li>• What can you do in <u>your</u> institution to initiate changing Stroke Care practices with respect to prevention of stroke</li> <li>• Identify 1-2 key learnings from today that you could take back to help kick start your change initiatives</li> </ul> <p>b. Use the Stroke Care Action Plan worksheet in your PW to record your plan</p>	<p>14 min</p>	<p>Slide 88</p>
<p>2. Display <u>Thank you for your participation</u> and thank participants for their effort.</p> <p>3. End the workshop by having participants complete a program evaluation sheet, if applicable</p>	<p>1 min</p>	<p>Slide 89</p>



## Appendix A

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### Stroke Risk Round Up

Use this activity at the start of [Impact & Cost of Stroke in Canada](#) in order to review key facts and data about stroke and get participants loosened up and introduced to one another.

1. Before the session, print out one copy of the cue card pages starting on the next page, then cut out each of the four cards per page. Each question card (Q Card) has a related answer card (A Card).
2. At the start of the session, give each participant one Q Card and one A Card but don't tell them what they are for to increase anticipation.
3. When you get to this activity, refer participants to the cue cards you handed out and review the instructions (see appropriate FG page).
4. Ask for a volunteer to start things off by reading out her Question card.
5. The person who thinks she has the correct Answer card must wave it and read the answer aloud.
6. If correct, it will be her turn to read out the next question on her Question card.
7. If not correct, everyone must agree on the correct answer, then ask the person with that Answer card to read out her question.
8. Play will continue in this manner until all questions have been read along with their correct answers.



**Q**

**Approximately what percentage of stroke victims die of their stroke?**

**A**

**15%.**

**Q**

**Approximately what percentage of stroke victims are left with moderate to severe disability?**

**A**

**Approximately 30%.**



**Q**

**What percentage of strokes are ischemic strokes?**

**A**

**80%.**

**Q**

**What percentage of ischemic stroke victims make a full recovery?**

**A**

**25%.**



**Q**

**How many new stroke patients are there in Canada every year?**

**A**

**50,000.**

**Q**

**What percentage of stroke patients are under 65 years of age?**

**A**

**28%.**



**Q**

**What is the chance of a recurrent event within 2 years?**

**A**

**20% chance.**

**Q**

**True or False: Stroke is the leading cause of adult disability in Canada.**

**A**

**True.**



**Q**

**Approximately how many more times at risk for stroke is a 20 or more cigarette a day smoker compared to a non-smoker?**

**A**

**2-4 times.**

**Q**

**Hypertension is estimated to account for about what percentage of the population attributable risk for cerebrovascular disease?**

**A**

**About 60%.**

**Q**

**Diabetes can increase the risk of stroke, especially in some younger subgroups, by up to how much?**

**A**

**Up to 10 times.**

**Q**

**True or False: Level 1 evidence indicates that stroke unit care reduces the likelihood of death and disability but in male patients only.**

**A**

**False.**

**Q**

**Stroke guidelines recommend that t-PA be administered within what timeframe of ischemic stroke onset?**

**A**

**Within 3 hours.**

**Q**

**For every 100 patients receiving organized inpatient interdisciplinary rehab, how many returned home in an independent state?**

**A**

**Five out of every 100 patients.**



**Q**

**Approximately how many stroke patients are spared a poor outcome when they receive community based stroke rehab services?**

**A**

**Approximately 1 in 15 stroke patients.**

## Resources

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1. Canadian Stroke Strategy Best Practices and Standards  
Canadian Best Practice Recommendations for Stroke Care 2006
2. Faaast FAQs for Stroke Nurses 2007
3. [www.strokerecoverycanada.com](http://www.strokerecoverycanada.com) Providing support, throughout Canada, to stroke survivors and their families
4. [www.strokesurvivors.ca](http://www.strokesurvivors.ca)  
Provides information about rehabilitation, physiotherapy, caregiving, support services, and more. ... underinvestigated and undertreated in Canadian emergency rooms.
5. [ww2.heartandstroke.ca](http://ww2.heartandstroke.ca)  
The Heart and Stroke Foundation is a reliable source of medical information about stroke and heart disease, surgeries and treatments in Canada
6. [ww.hc-sc.gc.ca](http://ww.hc-sc.gc.ca)  
Stroke is one of the leading causes of death in Canada. ... Health Agency of Canada's Centre for Chronic Disease ... Heart and Stroke Foundation of Canada
7. [www.canadianstrokenetwork.ca](http://www.canadianstrokenetwork.ca)  
The Canadian Stroke Network was established to create a national consortium.
8. [www.strokeconsortium.ca](http://www.strokeconsortium.ca)  
The Canadian Stroke Consortium is an academic network pursuing anti-stroke therapies through research projects and clinical trials.
9. [www.cwhn.ca/resources/kickers/stroke.html](http://www.cwhn.ca/resources/kickers/stroke.html)  
Almost 60% of the 50,000 strokes in Canada each year affect women. ... In 1999, a total of 9,038 women died in Canada as a result in stroke.

10. [www.nlm.nih.gov/medlineplus/stroke.html](http://www.nlm.nih.gov/medlineplus/stroke.html)  
Offers basic information about strokes, diagnosis, risk factors, prevention, treatment, and related issues.
11. [www.ninds.nih.gov/health\\_and\\_medical/disorders/stroke.htm](http://www.ninds.nih.gov/health_and_medical/disorders/stroke.htm)  
Stroke information sheet compiled by the National Institute of Neurological Disorders and Stroke (NINDS) ... Stroke: Hope Through Research
12. [www.stroke.ninds.nih.gov](http://www.stroke.ninds.nih.gov)  
National Institute of Neurological Disorders and Stroke. Home. About the Campaign. Stroke Materials. Health Professional Resources. Campaign Partners
13. [www.strokeassociation.org](http://www.strokeassociation.org)  
Dedicated to decreasing disability and death from stroke through educational programs, products and services, and advocacy.
14. [www.mayoclinic.com/health/stroke/DS00150](http://www.mayoclinic.com/health/stroke/DS00150)  
Comprehensive overview covers symptoms, causes, treatment of interruption of brain's blood supply. ... Stroke is a medical emergency
15. [www.stroke.org](http://www.stroke.org)  
National voluntary health care organization focusing on stroke prevention, treatment, rehabilitation, and research for stroke survivors/families
16. [www.cmaj.ca](http://www.cmaj.ca)  
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