

Dementia Risk Calculator

Risk = _____ %
(Age)

AGE	%
<65	1
65	2
70	4
75	8
80	16
85	32

Family history (Risk doubles for each first degree relative)

- Mother x 1 (no family history)
- Father Risk = _____ % x 2 (1 relative)
- Brother (age) x 4 (2 relatives)
- Sister

Risk = _____ %
(Age + Family History)

Vascular risk factors (Risk doubles for each vascular risk factor)

- Atrial Fibrillation
- Diabetes
- Heart Disease (MI/CAD) x 1 (no vascular risk factor)
- Hyperlipidemia Risk = _____ % x 2 (1 vascular risk factor)
- Hypertension (age + family) x 4 (2 vascular risk factors)
- Smoking
- Stroke
- Obesity

Risk = _____ %
(Age + Family History + Vascular Risk Factors)

Overall Risk = _____ %





Dementia Risk Calculator

This short screening tool allows an overall risk score based on aggregate scores from the individual's risk factors in three areas: Age, vascular risk factors, and family history. A positive score on the Calculator tool warrants further assessment with the Dementia Quick Screen.

Dementia Risk Calculator	
Link to Tool	http://www.sagelink.ca/uploads/tools/DementiaRiskCalculator.pdf
Time to Administer	1 - 2 minutes
Type	Non-standardized screening tool.
Setting	Primary care.
Administration	Use the rule of "2" to calculate an elderly patient's risk of dementia: At age 65, the risk is "2%" and every 5 years increased age the risk increases by x 2 : - Every vascular risk factor increases the risk x 2 - Every first degree relative with a history of dementia increases risk x 2
Interpretation	Add age-associated risk, vascular factor-associated risk and family history-associated risk for an overall total risk. If total risk is > 15- 20% , then perform Dementia Quick Screen : http://www.sagelink.ca/uploads/tools/DementiaQuickScreen.pdf <ul style="list-style-type: none"> • Three item recall – house, tree, car (0 - 1 correct) • Four-legged animal naming in one (1) minute (< 15) • Clock drawing (abnormal)
Reference	De la Torre J.C. (2004). Is Alzheimer's disease a neurodegenerative or a vascular disorder? Data, dogma and dialectics. <i>Lancet Neurology</i> , 3, 184-190. Gauthier S.J. (1997). Alzheimer disease: current knowledge, management and research. <i>Canadian Medical Association Journal</i> , 157, 1047-52. Siu A . (1991). Screening for dementia and investigating its causes. <i>Annals of Internal Medicine</i> , 115, 122-132.

Completed Dementia Risk Calculator

The **dementia risk calculator** is based on age, vascular risk factors, and family history of dementia (**the doubling rule**). For example, a 75-year-old man with a history of hypertension, whose mother had dementia, would score 32% risk of cognitive impairment.

8% (75 years of age) X2 (1 first degree relative) X2 (1 vascular risk factor) = 32%

AGE	%
<65	1
65	2
70	4
75	8
80	16
85	32

$$\text{Risk} = \frac{8}{(\text{Age})} \%$$

Family history (Risk doubles for each first degree relative)

- Mother x 1 (no family history)
 Father x 2 (1 relative)
 Brother x 4 (2 relatives)
 Sister

$$\text{Risk} = \frac{8}{(\text{age})} \% \times 2 \text{ (1 relative)}$$

$$\text{Risk} = \frac{16}{(\text{Age} + \text{Family History})} \%$$

Vascular risk factors (Risk doubles for each vascular risk factor)

- Atrial Fibrillation x 1 (no vascular risk factor)
 Diabetes x 2 (1 vascular risk factor)
 Heart Disease (MI/CAD) x 4 (2 vascular risk factors)
 Hyperlipidemia x 2 (1 vascular risk factor)
 Hypertension
 Smoking
 Stroke
 Obesity

$$\text{Risk} = \frac{16}{(\text{age} + \text{family})} \% \times 2 \text{ (1 vascular risk factor)}$$

$$\text{Risk} = \frac{32}{(\text{Age} + \text{Family History} + \text{Vascular Risk Factors})} \%$$

Overall Risk = 32 %

***A risk \geq 15% is high risk for cognitive impairment and justifies full cognitive assessment. The higher the risk of cognitive impairment by using the dementia risk calculator, the higher the chance that screening tests will reflect true positives rather than false positives.**