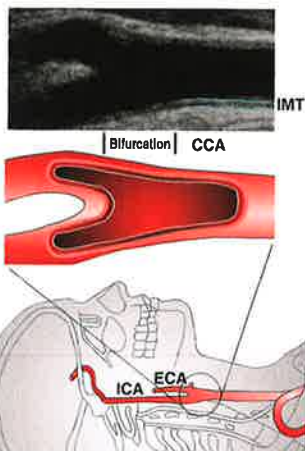


This report is based on an ultrasound scan of the carotid arteries and can assist your health care provider in the assessment of your risk for a cardiovascular event. A CINT value can be expressed as a percentile of age and gender, matched individuals referencing community based peer-reviewed data. A CINT percentile is not a "percent stenosis" and does not indicate the presence of obstruction. This study is not a replacement for a clinically indicated carotid duplex study. Using IMT as a method of understanding disease progression can provide incremental and valuable understanding to a physician attempting to make a treatment decision, in addition to information yielded by more traditional measures of cardiovascular disease progression like cholesterol levels and body mass assessment.



### RIISAGER, BURTON

Date of Birth: 05-16-1953

Age at Exam: 68

Gender: M

Referring Dr.: HOFF

Ethnic Origin: White or Other

Patient ID: 05-16-53 M

Exam. Date: 01-21-2022

Report Created: 02-11-2022

#### Summary

|                | COMBINED |       |       |
|----------------|----------|-------|-------|
|                | Ave      | Min   | Max   |
| Mean IMT       | 0.859    | 0.650 | 0.969 |
| Max Region IMT | 1.013    | 0.762 | 1.148 |
| Plaque         | 0.000    | 0.000 | 0.000 |

|                | RIGHT |       |       | LEFT  |       |       |
|----------------|-------|-------|-------|-------|-------|-------|
|                | Ave   | Min   | Max   | Ave   | Min   | Max   |
| Mean IMT       | 0.781 | 0.650 | 0.912 | 0.911 | 0.840 | 0.969 |
| Max Region IMT | 0.887 | 0.762 | 1.012 | 1.097 | 1.036 | 1.148 |
| Plaque         | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

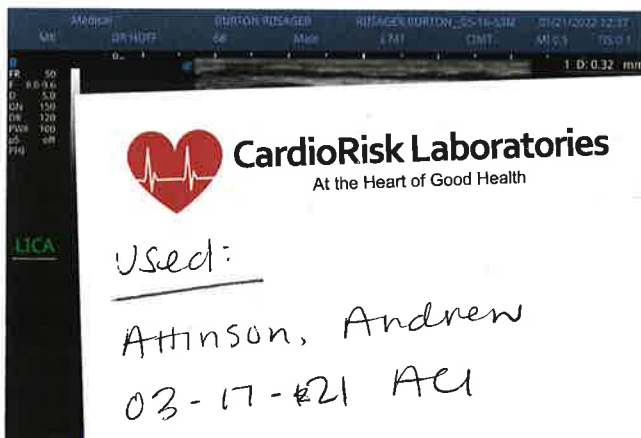
#### Comments:

Right CCA 2.2 E; Bulb 3.0 E; ICA 2.9 E

Left CCA 1.7 H; Bulb 3.7 E; ICA 1.9 E

Doppler was used bilaterally. Excessive scar tissue and echogenicity of pathology is blocking reliable measurement bilaterally. Multiple echogenic plaques bilaterally in all segments

*Cint will probably not benefit this patient due to scar tissue & body habits. Can't get reliable*



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Used:  
Atkinson, Andrew  
03-17-21 ACI

Average

Average

888-724-7484 • www.cardiorisk.us

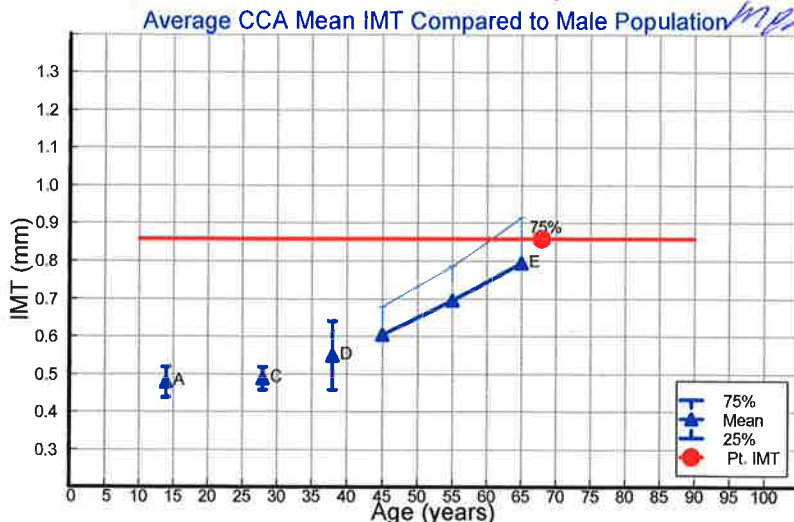
A Tonstad, S (1996) Arterioscler Thromb  
B Urbina, E (2002) Am J Cardiol  
C Oren, A (2003) Arch Intern Med  
D Tonstad, S (1998) Eur J Clin Invest  
E Aminbakhsh, A (1999) Clin Invest Med  
See User Guide for complete references. All reference data is 10mm distal CCA and is primarily from white populations with no coronary history. Consult your Doctor for information on race differences.

SonoCalc™ IMT



SonoSite

Your Doctor should interpret this IMT result in conjunction with your other risk factors. Medical decision making takes a multitude of factors into account, and risk factor modification should be made in consultation with your Doctor.



### RIISAGER, BURTON

Date of Birth: 05-16-1953

Age at Exam: 68

Gender: M

Referring Dr.: HOFF

Ethnic Origin: White or Other

Patient ID: 05-16-53 M

Exam. Date: 01-21-2022

Report Created: 02-11-2022

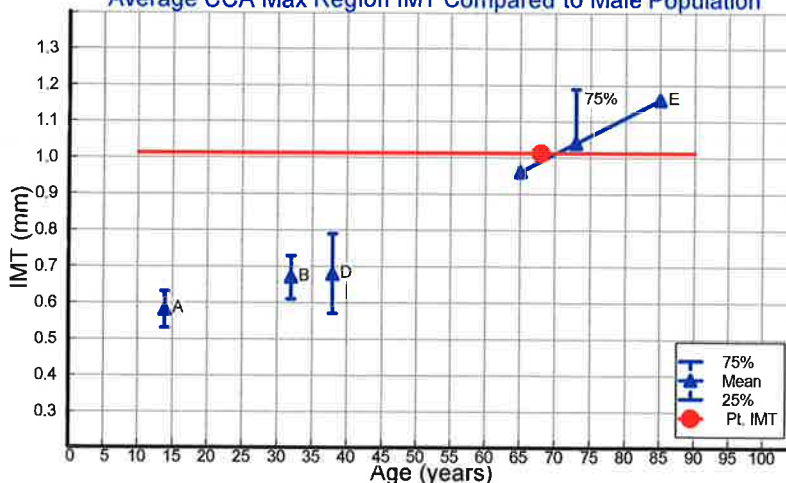
#### Average CCA Max Region IMT:

Average of individual 1mm  
Max Region measurements

**1.013mm**

A Tonstad, S (1996) Arterioscler Thromb  
B Urbina, E (2002) Am J Cardiol  
C Oren, A (2003) Arch Intern Med.  
D Tonstad, S (1998) Eur J Clin Invest  
E Aminbakhsh, A (1999) Clin Invest Med  
See User Guide for complete references. All reference data is 10mm distal CCA  
and is primarily from white populations with no coronary history. Consult your  
Doctor for information on race differences.

#### Average CCA Max Region IMT Compared to Male Population



#### Individual

|   |          | IMT (mm) |       |       |         |
|---|----------|----------|-------|-------|---------|
|   |          | Mean     | Max   | Width | Comment |
| 1 | R Lat F  | 0.650    | 0.762 | 10.0  | R5      |
| 2 | R Post F | 0.912    | 1.012 | 10.0  | R8      |
| 3 | L Lat F  | 0.969    | 1.148 | 10.0  | L5      |
| 4 | L Ant F  | 0.840    | 1.036 | 10.0  | L2      |
| 5 | L Post F | 0.925    | 1.106 | 10.0  | L8      |

Plaque Dist(mm) Comment

#### Imported

IMT (mm)  
Mean Max Width

Plaque Dist (mm)

Dia Reduction:

Dist 1 (mm) Dist 2 (mm) Red

Area Reduction:

Area 1(cm2) Area 2(cm2) Red

Today's date: 2/1/2022

Practice/Physician: James Hoff

Patient name: Burton Riisager

Scan date: 1/21/2022

LCA measured on NW of LCA  
1.7 H Echo genic plaque  
found mid LCA NW  
(outside study area)  
LCB - NW of LCB  
LICA - NW of LICA - not  
reliable - N/V.

Scan/reading information: **FULL READ**

| Scan Date   | 1/21/2022     | 12/10/2021    | 12/14/2018    |
|-------------|---------------|---------------|---------------|
| Sonographer | Marie         | Alisha        | Erin          |
| Reader      | Diane Nielson | Diane Nielson | Diane Nielson |

Concerns:

| Scan Date | 1/21/2022<br>RESCAN    | 12/10/2021<br>NOT SENT | 12/14/2018 |
|-----------|------------------------|------------------------|------------|
| Mean      | <del>1.11</del> .86    | <del>1.48</del>        | 0.81       |
| Max       | <del>1.31</del> 1.01   | <del>1.70</del>        | 0.99       |
| RCCA      | <del>1.1</del> 2.2 E   | 1.3 H                  | 4.3 H      |
| RCB       | <del>1.2</del> 3.0 E   | 2.0 H                  | 3.0 E      |
| RICA      | <del>0.8</del> 2.9 E   | 1.4 H                  | 2.9 E      |
| LCCA      | <del>1.3 H</del> 1.7 H | 2.0 H                  | 2.0 E      |
| LCB       | 3.9 E 3.7 E            | 2.1 H                  | 2.8 E      |
| LICA      | N/V 1.9 E              | N/V                    | 1.9 E      |

\*\*\*Patient had an endarterectomy on March 12, 2020, and November 4, 2019. He had both left and right

Changes to be made:

R5 - largely N/V - measured 6.8mm of PW

R2 - N/V

R8 - 10mm but very sketchy!

LCCA 2.2 E (outside study area - proximal 2cm) & REV 2.0

RCB = 3.0 - measured in RCB NW - lots of artifact!

RICA = 2.9 measured in NW of RICA - image is reversed sonographer pointed transducer the wrong way! - very sketchy!



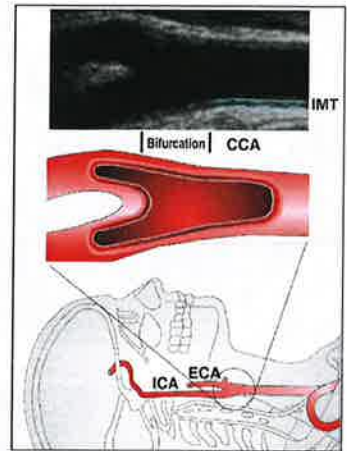
# CardioRisk™ Scan Patient Results

Patient Name: RIISAGER, BURTON  
 Gender: M  
 Date of Exam: 1/21/2022  
 Date of Birth: 5/16/1953  
 Referring Provider: JAMES HOFF

Rescan exam from  
 December

Has not  
 been sent

|              |     |             |         |
|--------------|-----|-------------|---------|
| Patient Age  | 68  | Patient IMT | 1.11 mm |
| Arterial Age | >80 | Normal IMT  | <.50 mm |



## CV Event Risk

All measurements in mm

| Test Criteria:         | Normal | Moderate | High | Last Visit (2018)* | Alert Value* |
|------------------------|--------|----------|------|--------------------|--------------|
| Early Event Risk**     |        |          | 3.9  | 4.3                | 2.5          |
| Average CCA Mean IMT   |        |          | 1.11 | 0.81               | 0.73         |
| Average CCA Max Region |        |          | 1.31 | 0.99               | 0.75         |
| Plaque Burden**        |        |          | 5.2  | 16.9               |              |

## Comments:

The following values are the largest intima-media thickness (IMT) measurements found in each carotid artery segment. Any measurement equal to or 1.3mm is defined as 'plaque' and is characterized as being: S = Soft; H = Heterogeneous; or E = Echogenic (includes mineral deposits like calcium). All measurements are in millimeters.

Right CCA 1.1; Bulb 1.2; Internal Carotid .8  
 Left CCA 1.3 H; Bulb 3.9 E; Internal Carotid N/V  
 Doppler was used bilaterally.

### Comments from 12/14/2018 Scan

Right CCA 4.3 H; Bulb 3.0 E; Internal Carotid 2.9 E  
 Left CCA 2.0 E; Bulb 2.8 E; Internal Carotid 1.9 E  
 Doppler was used bilaterally. Carotid Stenosis > Fifty percent possible.  
 Complete Doppler Flow study may be considered if clinically indicated.

\*\* Early Event Risk refers to a patient's increased risk of having an event in the next 5.1 years  $\pm$  2.3 years. It does not suggest the patient will have an event in that time frame, only that the hazard ratio significantly increases (from 1 to between 4.1 and 6.7 depending on the patient's Framingham risk score) (D Baldassare et al / Atherosclerosis xxx 2006 xxx-xxxx)

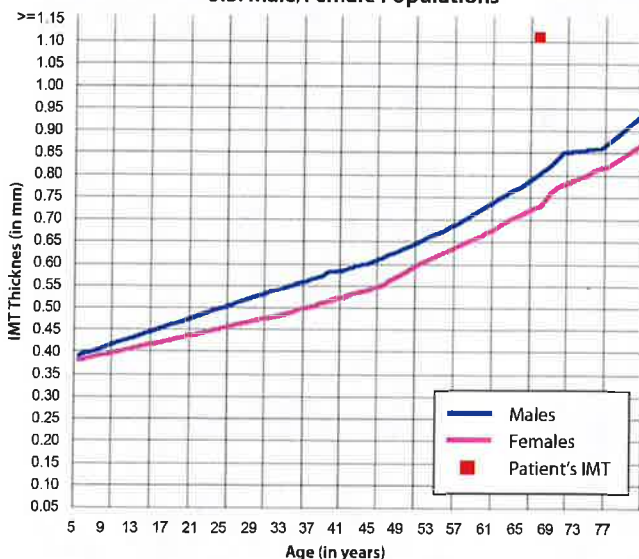
\* A progression rate of .034 mm or greater in the thickness of the mean IMT per year, increases the risk of future events significantly. (Hodis HN, et al / Ann Intern Med 1998;128:262-9)

\* The Alert Value is the threshold measurement at which this patient's risk is inflated beyond a 'Normal' reading.

\*\* Plaque Burden is the sum of the plaques found and measured. It does not have an Alert Value because plaques of any size are atherosclerotic and increase patient risk. The Plaque Burden score is intended to help physicians track progression of disease over time.

Patients with values in yellow or red on ANY risk test criteria have inflated risk.

## Patient Arterial Age Compared to U.S. Male/Female Populations



Your Doctor should interpret the results from this report in conjunction with your other risk factors. Medical decision making takes a multitude of factors into account, and risk factor modification should be made in consultation with your Doctor. Arterial Age™: The mean distal 1 cm common carotid artery (CCA) IMT measured looks like the average same gender person in a general population which had no coronary heart history expressed as Arterial Age above. The risk assessment data provided above should be used with caution. Data from five different studies which used different criteria for participation, different training methods, and different scanning and reading protocols [A: Tonstad, S (1996) Arterioscler Thromb; B: Urbina, E (2002) Am J Cardiol; C: Oren, A. (2003) Arch Intern Med.; D: Tonstad, S. (1998) Eur J Clin Invest; E: Aminbakhsh, A (1999) Clin Invest Med] were used to create an approximate arterial age compared to normal populations found in these studies. Regression analyses was used to estimate population age over time based on the cited studies above. In a careful literature review, the data cited above is an approximation of the relationship between CIMT and age in epidemiologic studies. The above data relating age to CIMT is useful in comparing a single patient's result with a population mean, and takes on additional meaning when comparing a current CardioRisk CIMT score with a previous CardioRisk CIMT score on the same patient. It is important to note that these studies do not account for the highest risk patients, those who died from the disease.



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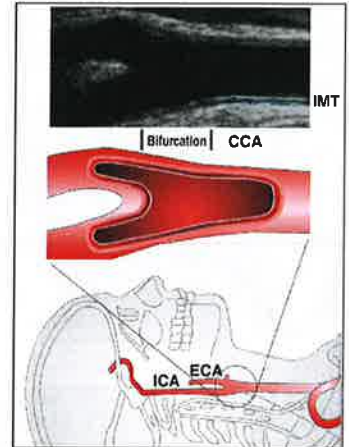
# CardioRisk™ Scan Patient Results

Patient Name: RIISAGER, BURTON  
 Gender: M  
 Date of Exam: 12/10/2021  
 Date of Birth: 5/16/1953  
 Referring Provider: JAMES HOFF

Requested rescan on his  
 December exam

Was not  
 Sent

|              |     |             |         |
|--------------|-----|-------------|---------|
| Patient Age  | 68  | Patient IMT | 1.48 mm |
| Arterial Age | >80 | Normal IMT  | <.50 mm |



## CV Event Risk

All measurements in mm

| Test Criteria:         | Normal | Moderate | High | Last Visit (2018)* | Alert Value* |
|------------------------|--------|----------|------|--------------------|--------------|
| Early Event Risk**     | 2.1    |          |      | 4.3                | 2.5          |
| Average CCA Mean IMT   |        |          | 1.48 | 0.81               | 0.73         |
| Average CCA Max Region |        |          | 1.70 | 0.99               | 0.75         |
| Plaque Burden**        |        |          | 8.8  | 16.9               |              |

## Comments:

The following values are the largest intima-media thickness (IMT) measurements found in each carotid artery segment. Any measurement equal to or 1.3mm is defined as 'plaque' and is characterized as being: S = Soft; H = Heterogeneous; or E = Echogenic (Includes mineral deposits like calcium). All measurements are in millimeters.

Right CCA 1.3 H; Bulb 2.0 H; Internal Carotid 1.4 H  
 Left CCA 2.0 H; Bulb 2.1 H; Internal Carotid N/V  
 Doppler was used bilaterally.

### Comments from 12/14/2018 Scan

Right CCA 4.3 H; Bulb 3.0 E; Internal Carotid 2.9 E  
 Left CCA 2.0 E; Bulb 2.8 E; Internal Carotid 1.9 E  
 Doppler was used bilaterally. Carotid Stenosis > Fifty percent possible.  
 Complete Doppler Flow study may be considered if clinically indicated.

\*\* Early Event Risk refers to a patient's increased risk of having an event in the next 5.1 years  $\pm$  2.3 years. It does not suggest the patient will have an event in that time frame, only that the hazard ratio significantly increases (from 1 to between 4.1 and 6.7 depending on the patient's Framingham risk score)  
 (D Baldassare et al / Atherosclerosis xxx 2006 xxx-xxxx)

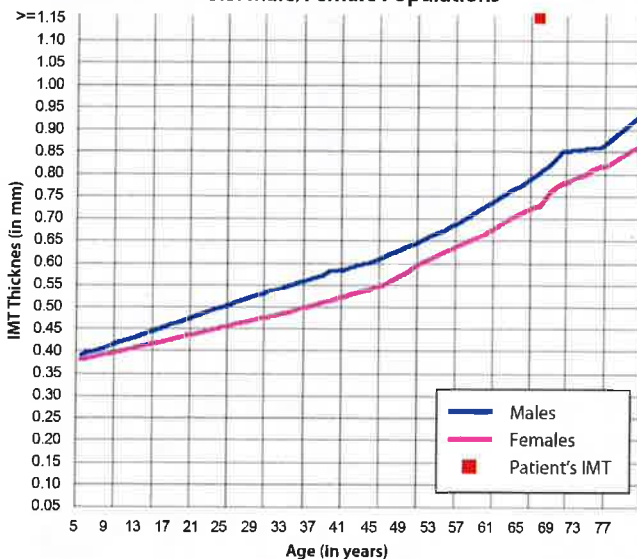
\* A progression rate of .034 mm or greater in the thickness of the mean IMT per year, increases the risk of future events significantly.  
 (Hodis HN, et al / Ann Intern Med 1998;128:262-9)

\* The Alert Value is the threshold measurement at which this patient's risk is inflated beyond a 'Normal' reading.

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Today's date: 12/27/2021

Practice/Physician: James Hoff

Patient name: Burton Riisager

Scan date: 12/10/2021

1/3/2022

Todd had a conversation with Dr. Hoff, requesting a rescan. The office has scheduled the patient for 1/14/2022.

Scan/reading information:

| Scan Date   | 12/10/2021    | 12/14/2018    |
|-------------|---------------|---------------|
| Sonographer | Alisha        | Erin          |
| Reader      | Diane Nielson | Diane Nielson |

Concerns:

| Scan Date | 12/10/2021 | 12/14/2018 |
|-----------|------------|------------|
| Mean      | 1.48       | 0.81       |
| Max       | 1.70       | 0.99       |
| RCCA      | 1.3 H      | 4.3 H      |
| RCB       | 2.0 H      | 3.0 E      |
| RICA      | 1.4 H      | 2.9 E      |
| LCCA      | 2.0 H      | 2.0 E      |
| LCB       | 2.1 H      | 2.8 E      |
| LICA      | N/V        | 1.9 E      |

**\*\*\*Patient had an endarterectomy on March 12, 2020, and November 4, 2019. He had both left and right**

Changes to be made:



# CardioRisk™ Scan Patient Results

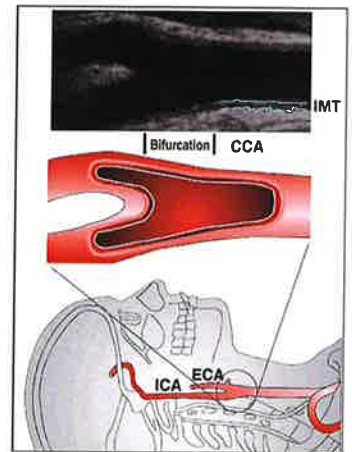
Patient Name: RIISAGER, BURTON  
 Gender: M  
 Date of Exam: 12/10/2021  
 Date of Birth: 5/16/1953  
 Referring Provider: JAMES HOFF

|              |     |             |         |
|--------------|-----|-------------|---------|
| Patient Age  | 68  | Patient IMT | 1.48 mm |
| Arterial Age | >80 | Normal IMT  | <.50 mm |

## CV Event Risk

All measurements in mm

| Test Criteria:         | Normal | Moderate | High | Last Visit (2018)* | Alert Value* |
|------------------------|--------|----------|------|--------------------|--------------|
| Early Event Risk **    | 2.1    |          |      | 4.3                | 2.5          |
| Average CCA Mean IMT   |        |          | 1.48 | 0.81               | 0.73         |
| Average CCA Max Region |        |          | 1.70 | 0.99               | 0.75         |
| Plaque Burden**        |        |          | 8.8  | 16.9               |              |



**Comments:** The following values are the largest intima-media thickness (IMT) measurements found in each carotid artery segment. Any measurement equal to or 1.3mm is defined as 'plaque' and is characterized as being: **S = Soft; H = Heterogeneous; or E = Echogenic** (includes mineral deposits like calcium). All measurements are in millimeters.

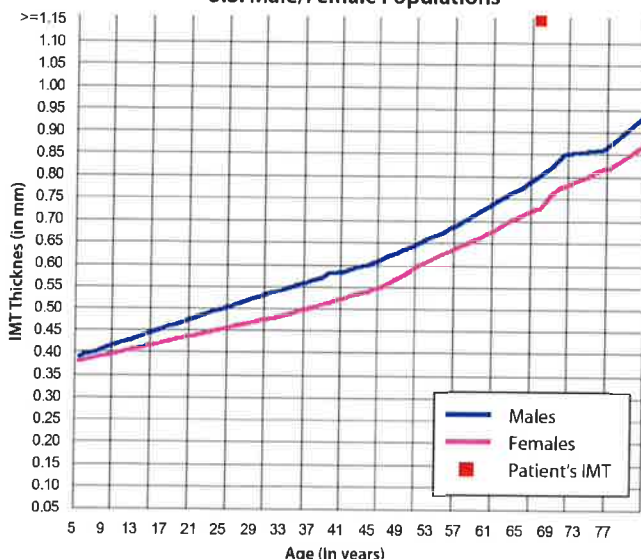
**Right CCA 1.3 H; Bulb 2.0 H; Internal Carotid 1.4 H**  
**Left CCA 2.0 H; Bulb 2.1 H; Internal Carotid N/V**  
**Doppler was used bilaterally.**

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 At the Heart of Good Health