

# Fenton 2025 Growth Chart Plotter Users Guide

For Plotter version V1.4.3.x

by

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# Step 1: Prepare your data

Link to open webpage  
**Fenton 2025 Growth Chart Plotter**  
(<https://fentongrowth.ca>)

The screenshot shows the 'Fenton 2025 Growth Plotter' web application. At the top, there are tabs for 'Growth Plotter' and 'Bulk processing'. Below the tabs is a header 'Welcome to the Fenton 2025 Growth Plotter' and a photograph of a healthcare professional with a baby. The main form is divided into several sections: 'Paste or drop data (optional)' with a text area for pasting CSV or Excel data; 'Baby information' with radio buttons for 'Female' (selected) and 'Male', and input fields for 'Language of background growth chart' (English), 'Date of birth', 'GA at birth', 'Title', 'Number or secondary title', and 'Data type' (Growth Monitoring); and 'Measurements' with a table for recording data. The table has columns for '#', 'GA (weeks)', 'Weight (g)', 'Head (cm)', and 'Length (cm)'. Below the table are buttons for 'Copy your data to clipboard', 'Download your data', 'Calculate z-scores', 'Clear', and a large green 'GO' button. At the bottom, there are links for 'Download User Documentation', 'Download Useful Excel Spreadsheet to format data', and 'Download Example of Single Baby drag & drop CSV File'. A footer contains contact information and the API Software Version: 1.4.3.0.

## Option A

Enter your data into the provided fields. Then press GO  
See Page 7.

## Option B

Download the Excel worksheet.  
Use this to compute the required gestational ages (GA) from dates.  
See Page 3&4

## Option C

Download the Single baby example comma-separated values (CSV) formatted file.  
Use this when you have gestational ages (GA) for all your measurements.  
See Page 5.

# Step 1 Option B: Using the Excel worksheet

Use this for a single baby to compute the required gestational age (GA) from dates.

Part a: Prepare data on left side.

**Optional - Title** : For chart and table

**Optional - Number** : ID, name or secondary title

**Required - Date of birth** : Used to compute gestational age (GA) of the measurements.

**Required - GA at birth** : Used to compute GA of the measurements and for change in z score differences. It can be decimal or fractional format eg "24 3/7"

**Required - Sex** : F for female, M for male. Use the drop-down menu to select.

**Optional - Language** : Language of chart. Use drop-down menu to select.

**Optional - Length (cm)** : Measured baby length in centimetres.

**Optional - Head (cm)** : Measured head circumference in centimetres.

**Optional - Weight (g)** : Measured weight in grams.

**Required - Date** : Date of measurements. Can be in any date format that Excel accepts.

**Optional: data type:** select Growth monitoring or BirthSize. Use Growth monitoring to monitor preterm (born between 22 to 37 weeks) infants' growth after birth using the Fenton third-generation growth chart to 50 weeks post menstrual age. Use Birth size evaluation to determine z-scores and percentiles at the time of birth for infants born at 22 to 42 weeks. The data is the same between the growth monitoring and birth size databases up to about 37 weeks, therefore size assessment can be made using either the Growth or the Birth size data up to about 37 weeks. For any infants with a gestational age at birth of 37 to 42 weeks, use the Birth size evaluator and not the Growth chart for accurate z-scores and percentiles. The birth size database is based on the 15-country meta-analysis that was prepared for the Fenton third-generation growth chart development. Refer to the growth chart development paper for more explanation. [Fenton 2025 Growth Paper](https://doi.org/10.1111/ppe.70035)  
The default is Growth monitoring. (https://doi.org/10.1111/ppe.70035)

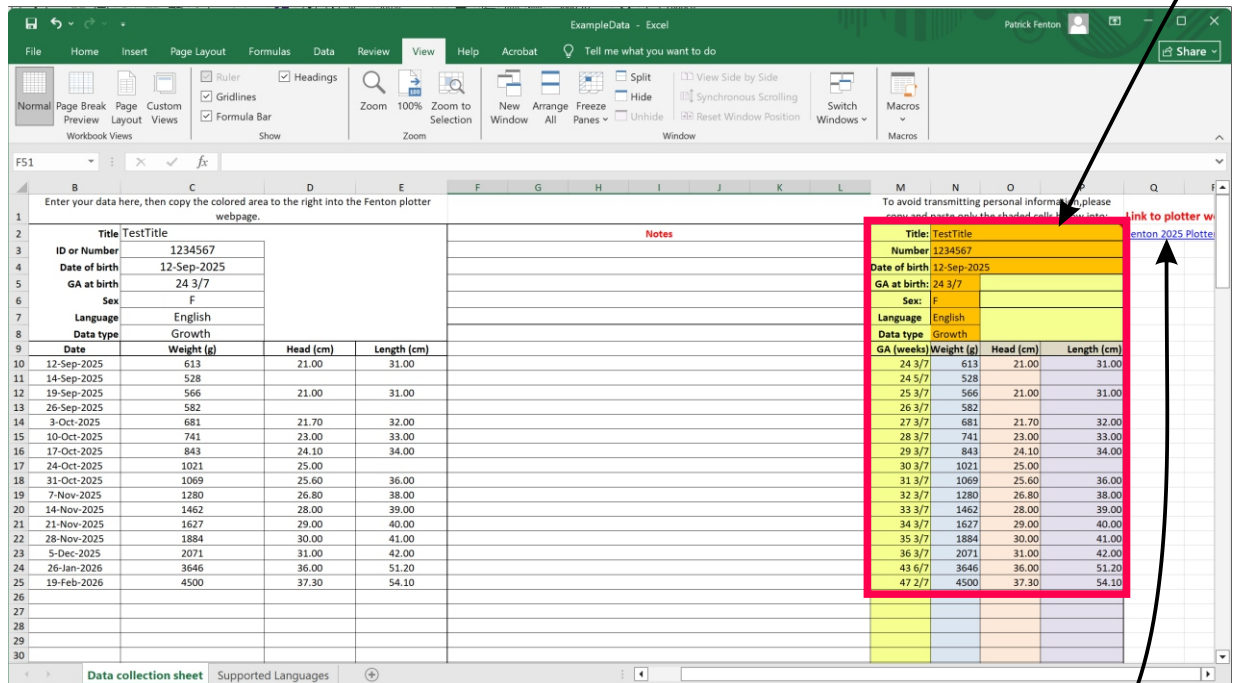
# Step 1 Option B: Using the Excel worksheet

Use this for a single baby to compute the required gestational age (GA) from dates.

## Part b: Copy output data from the right side to clipboard

Select the shaded cells that have your formatted data

Press Ctrl+C (PC) or Cmd+C (Mac) to copy to clipboard



## Part c: Open the Plotting web page

Click on Link on the Excel page  
or this link

[Fenton 2025 Growth Chart Plotter](https://fentongrowth.ca)  
(<https://fentongrowth.ca>)

See **Page 6**

# Step 1 Option C: Using SingleBabyExample.csv

Use this for a single baby when you have gestational ages (GA) instead of dates.

## Part a: Prepare data as shown

| Growth     |            |           |             |
|------------|------------|-----------|-------------|
| GA (weeks) | Weight (g) | Head (cm) | Length (cm) |
| 24.42857   | 613        | 21        | 31          |
| 24.71429   | 528        |           |             |
| 25.42857   | 566        | 21        | 31          |
| 26.42857   | 582        |           |             |
| 27.42857   | 681        | 21.7      | 32          |
| 28.42857   | 741        | 23        | 33          |
| 29.42857   | 843        | 24.1      | 34          |
| 30.42857   | 1021       | 25        |             |
| 31.42857   | 1069       | 25.6      | 36          |
| 32.42857   | 1280       | 26.8      | 38          |
| 33.42857   | 1462       | 28        | 39          |
| 34.42857   | 1627       | 29        | 40          |
| 35.42857   | 1884       | 30        | 41          |
| 36.42857   | 2071       | 31        | 42          |
| 37.42857   | 3646       | 36        | 51.2        |
| 47.23571   | 4500       | 37.8      | 54.1        |

Optional - Title : For chart and table

Optional - Number : secondary title

Optional - Date of birth

Optional - GA at birth : Used to calculate change in z score differences. If not present, the first age is used. It can be decimal or fractional format eg "24 3/7".

Required - Sex : F for female, M for male

Optional - Language : Select background language for growth chart . Supported languages: English, Arabic, Chinese, Croatian, Estonian, French, Greek, Polish, Spanish, and Ukrainian. Defaults to English

Optional - Length (cm) : measured baby length in centimetres.

Optional - Head (cm) : measured head circumference in centimetres.

Optional - Weight (g) : measured weight in units of grams.

Required - GA (weeks) : Gestational age in weeks. can be decimal or fractional e.g.: "24 3/7"

Optional - Data type : choose "Growth" or "BirthSize" see page 3 for explanation. The default is "Growth".

**Part b** : Save your modified file and optionally copy all the data to the clipboard. Press Ctrl+C (PC) or Cmd+C (Mac) to copy to clipboard

**Part c**, Open the Plotting web page

Click the URL Link


Fenton 2025 Growth Chart Plotting App  
<https://fentongrowth.ca>

# Step 2, Paste data or drag and drop csv data file into the data drop zone.

Paste your data here with Cntr+V (PC), Cmd+V (Mac) or drag & drop your csv data file. After pasting or dropping, your data should appear in the form below. See **Page 6**.

Growth Plotter Bulk processing

## Welcome to the Fenton 2025 Growth Plotter



**Paste or drop data (optional)**  
Paste a CSV / Excel clip (or drop a .csv file) into the box below to automatically fill the form and rows.

Paste data or drag & drop a data file here.

**Baby information**

Female  
 Male

Language of background growth chart: English (optional)  
Date of birth: (e.g. 12-Sep-25, 2025-09-12, 9/12/2025) (optional)  
GA at birth: (e.g. 24w3d, 24+3, 24 3/7, 24.4) (optional)

Title: (optional)  
Number or secondary title: (optional)  
Data type: Growth Monitoring

**Measurements**

| # | GA (weeks)               | Weight (g) | Head (cm)  | Length (cm) |
|---|--------------------------|------------|------------|-------------|
| 1 | e.g. 24w3d, 24+3, 24 3/7 | (optional) | (optional) | (optional)  |

Copy your data to clipboard Download your data Calculate z-scores Clear GO

[Download User Documentation](#)  
[Download Useful Excel Spreadsheet to format data](#)  
[Download Example of Single Baby drag & drop CSV File](#)

Please contact me with your comments, suggestions or concerns at [tfenton@ucalgary.ca](mailto:tfenton@ucalgary.ca)  
[To Growth Chart web page](#)

API Software Version: 1.4.3.0

# Step 3: Initiate the processing

After pasting or dropping, your data should appear here.

| #  | GA (weeks)                     | Weight (g) | Head (cm)  | Length (cm) |
|----|--------------------------------|------------|------------|-------------|
| 1  | 24 3/7                         | 613        | 21         | 31          |
| 2  | 24 5/7                         | 528        | (optional) | (optional)  |
| 3  | 25 3/7                         | 566        | 21         | 31          |
| 4  | 26 3/7                         | 582        | (optional) | (optional)  |
| 5  | 27 3/7                         | 681        | 21.7       | 32          |
| 6  | 28 3/7                         | 741        | 23         | 33          |
| 7  | 29 3/7                         | 843        | 24.1       | 34          |
| 8  | 30 3/7                         | 1021       | 25         | (optional)  |
| 9  | 31 3/7                         | 1069       | 25.6       | 36          |
| 10 | 32 3/7                         | 1280       | 26.8       | 38          |
| 11 | 33 3/7                         | 1462       | 28         | 39          |
| 12 | 34 3/7                         | 1627       | 29         | 40          |
| 13 | 35 3/7                         | 1884       | 30         | 41          |
| 14 | 36 3/7                         | 2071       | 31         | 42          |
| 15 | 43 6/7                         | 3646       | 36         | 51.2        |
| 16 | 47 2/7                         | 4500       | 37.3       | 54.1        |
| 17 | e.g. 24w3d, 24+3, 24 3/7, 24.4 | (optional) | (optional) | (optional)  |

Press (GO) to plot your data  
See page 7

Press Clear to start over

Press to calculate z-scores  
See page 8

Press to download the above data  
as a csv file.

Press to copy the  
above data to your  
clipboard as csv text

# Step 4a: View chart and table in PDF format

**1234567 TestTitle**  
Fenton third-generation preterm growth chart

Date of birth: 2025-09-12  
GA at Birth: 24 3/7 weeks

**Download PDF** **Close**

**Girls**

Curves equal the WHO Growth Standard at 50 weeks

www.ucalgary.ca/fenton

Plot Date: 2026-02-20

API build: 1.3.6.2

Page 1 of 1  
Sex: Female | Date of Birth: 12-Sep-2025 | GA at Birth: 24 3/7 weeks | Generated: 2026-Feb-20 11:36

| GAge (weeks) | Weight (g) |       |       |    | Head Circ. (cm) |       |       |    | Length (cm) |       |       |    |
|--------------|------------|-------|-------|----|-----------------|-------|-------|----|-------------|-------|-------|----|
|              | Value      | Z     | dZ    | %  | Value           | Z     | dZ    | %  | Value       | Z     | dZ    | %  |
| 24 3/7       | 613        | -0.39 | 0.00  | 35 | 21.00           | -0.38 | 0.00  | 35 | 31.00       | 0.09  | 0.00  | 54 |
| 24 5/7       | 528        | -1.65 | -1.26 | 5  | -               | -     | -     | -  | -           | -     | -     | -  |
| 25 3/7       | 566        | -1.86 | -1.47 | 3  | 21.00           | -1.17 | -0.79 | 12 | 31.00       | -0.51 | -0.60 | 30 |
| 26 3/7       | 582        | -2.48 | -2.08 | <1 | -               | -     | -     | -  | -           | -     | -     | -  |
| 27 3/7       | 681        | -2.37 | -1.98 | <1 | 21.70           | -2.11 | -1.73 | 2  | 32.00       | -1.29 | -1.38 | 10 |
| 28 3/7       | 741        | -2.61 | -2.21 | <1 | 23.00           | -1.89 | -1.51 | 3  | 33.00       | -1.47 | -1.56 | 7  |
| 29 3/7       | 843        | -2.81 | -2.22 | <1 | 24.10           | -1.84 | -1.46 | 3  | 34.00       | -1.64 | -1.73 | 5  |
| 30 3/7       | 1021       | -2.21 | -1.82 | 1  | 25.00           | -1.83 | -1.45 | 3  | -           | -     | -     | -  |
| 31 3/7       | 1069       | -2.65 | -2.26 | <1 | 25.60           | -2.06 | -1.68 | 2  | 36.00       | -1.98 | -2.07 | 2  |
| 32 3/7       | 1280       | -2.24 | -1.85 | 1  | 26.80           | -1.89 | -1.51 | 3  | 38.00       | -1.70 | -1.79 | 4  |
| 33 3/7       | 1462       | -2.09 | -1.70 | 2  | 28.00           | -1.69 | -1.31 | 5  | 39.00       | -1.81 | -1.90 | 4  |
| 34 3/7       | 1627       | -2.08 | -1.69 | 2  | 29.00           | -1.62 | -1.24 | 5  | 40.00       | -1.93 | -2.02 | 3  |
| 35 3/7       | 1884       | -1.77 | -1.38 | 4  | 30.00           | -1.50 | -1.12 | 7  | 41.00       | -2.03 | -2.11 | 2  |
| 36 3/7       | 2071       | -1.74 | -1.34 | 4  | 31.00           | -1.31 | -0.93 | 10 | 42.00       | -2.09 | -2.18 | 2  |
| 43 0/7       | 3646       | -0.95 | -0.56 | 17 | 36.00           | -0.31 | 0.07  | 38 | 51.20       | -0.98 | -1.06 | 16 |
| 47 2/7       | 4500       | -0.46 | -0.07 | 32 | 37.30           | -0.31 | 0.07  | 38 | 54.10       | -0.80 | -0.89 | 21 |

- No Measurement  
Z-scores and percentiles are calculated from the LMS parameters of the 3rd Generation Fenton growth charts.  
dZ represents delta z-score, the change of z-score from birth

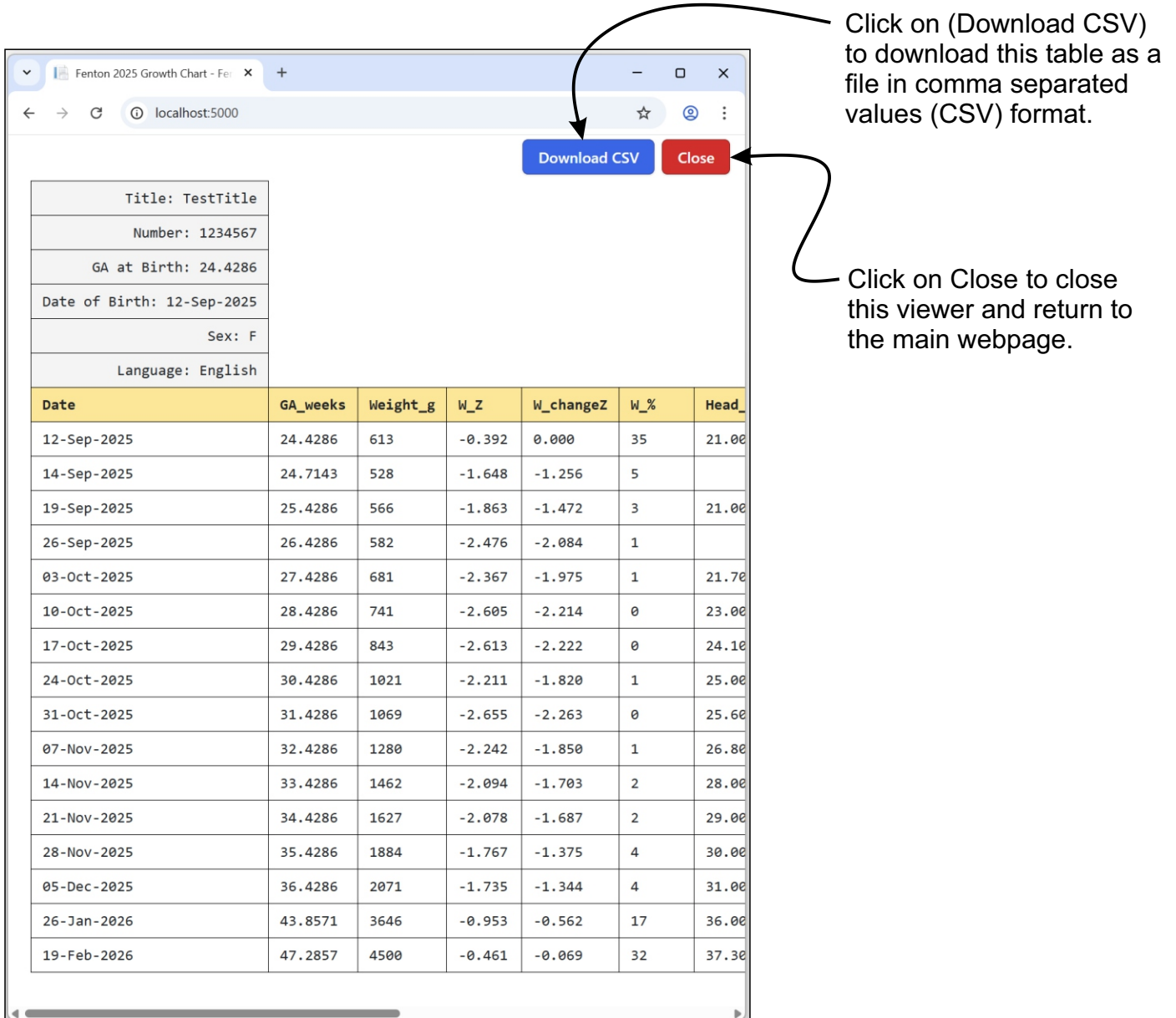
Click on (Download PDF) to download this document.

Click on Close to close this viewer and return to the plotting page.

Also included in this document is a table of the measurements, calculated z-scores, changes in z-scores from birth, and percentiles.

# Step 4b: View calculated z-score table

This table includes the measurements, calculated z-scores, changes in z-scores from birth, and percentiles.



Click on (Download CSV) to download this table as a file in comma separated values (CSV) format.

Click on Close to close this viewer and return to the main webpage.

| Date        | GA_weeks | Weight_g | W_Z    | W_changeZ | W_% | Head_ |
|-------------|----------|----------|--------|-----------|-----|-------|
| 12-Sep-2025 | 24.4286  | 613      | -0.392 | 0.000     | 35  | 21.00 |
| 14-Sep-2025 | 24.7143  | 528      | -1.648 | -1.256    | 5   |       |
| 19-Sep-2025 | 25.4286  | 566      | -1.863 | -1.472    | 3   | 21.00 |
| 26-Sep-2025 | 26.4286  | 582      | -2.476 | -2.084    | 1   |       |
| 03-Oct-2025 | 27.4286  | 681      | -2.367 | -1.975    | 1   | 21.70 |
| 10-Oct-2025 | 28.4286  | 741      | -2.605 | -2.214    | 0   | 23.00 |
| 17-Oct-2025 | 29.4286  | 843      | -2.613 | -2.222    | 0   | 24.10 |
| 24-Oct-2025 | 30.4286  | 1021     | -2.211 | -1.820    | 1   | 25.00 |
| 31-Oct-2025 | 31.4286  | 1069     | -2.655 | -2.263    | 0   | 25.60 |
| 07-Nov-2025 | 32.4286  | 1280     | -2.242 | -1.850    | 1   | 26.80 |
| 14-Nov-2025 | 33.4286  | 1462     | -2.094 | -1.703    | 2   | 28.00 |
| 21-Nov-2025 | 34.4286  | 1627     | -2.078 | -1.687    | 2   | 29.00 |
| 28-Nov-2025 | 35.4286  | 1884     | -1.767 | -1.375    | 4   | 30.00 |
| 05-Dec-2025 | 36.4286  | 2071     | -1.735 | -1.344    | 4   | 31.00 |
| 26-Jan-2026 | 43.8571  | 3646     | -0.953 | -0.562    | 17  | 36.00 |
| 19-Feb-2026 | 47.2857  | 4500     | -0.461 | -0.069    | 32  | 37.30 |