

## Method used by Kellymom.com to calculate average weight gain per week using the WHO Child Growth Standards

The WHO weight per age percentile tables (from birth to 5 years) for boys and girls that I used are located here: [http://www.who.int/childgrowth/standards/weight\\_for\\_age/en/index.html](http://www.who.int/childgrowth/standards/weight_for_age/en/index.html)

I did the calculations myself. For each age range (0-4 mo, 4-6 mo, 6-12 mo), I took the differences in weight (in kg) for the 5th, 50th & 95th percentiles. I did this for both boys and girls, so I ended up with six numbers for total weight gain for each age range. I then used the low and high of these 6 numbers as the weight gain range and divided by the number of weeks in that time period to get a range for weight gain per week.

Here are my actual calculations...

### Below are the numbers for the **0-4 mo age range**

(Girl data from [http://www.who.int/childgrowth/standards/WFA\\_girls\\_0\\_5\\_percentiles.pdf](http://www.who.int/childgrowth/standards/WFA_girls_0_5_percentiles.pdf) & boy data from [http://www.who.int/childgrowth/standards/WFA\\_boys\\_0\\_5\\_percentiles.pdf](http://www.who.int/childgrowth/standards/WFA_boys_0_5_percentiles.pdf) )

Copied from the above tables:

Girls.....5%.....50%.....95%  
Month 0.....2.5 kg....3.2 kg....4.0 kg  
Month 4.....5.2 kg....6.4 kg....7.9 kg

Boys.....5%.....50%.....95%  
Month 0.....2.6 kg....3.3 kg....4.2 kg  
Month 4.....5.8 kg....7.0 kg....8.4 kg

#### Girls 0-4 mo total weight gain

5% total wt. gain = 5.2 kg - 2.5 kg = 2.7 kg  
50% total wt. gain = 6.4 kg - 3.2 kg = 3.2 kg  
95% total wt. gain = 7.9 kg - 4.0 kg = 3.9 kg

#### Boys 0-4 mo total weight gain

5% total wt. gain = 5.8 kg - 2.6 kg = 3.2 kg  
50% total wt. gain = 7.0 kg - 3.3 kg = 3.7 kg  
95% total wt. gain = 8.4 kg - 4.2 kg = 4.2 kg

Low & high weight gain for girls & boys between 5% & 95% aged 0 to 4 months = 2.7 kg & 4.2 kg  
There are, on average, 17.4 weeks in 4 months ( $(365+365+365+366)\text{days} / 48\text{ mo} / 7\text{ days/week} = 4.348\text{ wks/mo}$ )

So the low kg per week weight gain is 2.7 kg / 17.4 wks = 0.155 kg/wk or **155 g/wk**  
And the high kg per week weight gain is 4.2 kg / 17.4 wks = 0.241 kg/wk or **241 g/wk**

Changing grams to ounces (1 oz = 28.35 g), to the nearest quarter-ounce...

155 g/wk / 28.35 g/oz = **5.5 oz/wk**  
241 g/wk / 28.35 g/oz = **8.5 oz/wk**

So I used **155-241 g/wk** or **5.5-8.5 oz/wk** as the average weight gain per week for breastfed babies between 0 & 4 months.

Below are the numbers for the **4-6 mo age range**

(Girl data from [http://www.who.int/childgrowth/standards/WFA\\_girls\\_0\\_5\\_percentiles.pdf](http://www.who.int/childgrowth/standards/WFA_girls_0_5_percentiles.pdf) & boy data from [http://www.who.int/childgrowth/standards/WFA\\_boys\\_0\\_5\\_percentiles.pdf](http://www.who.int/childgrowth/standards/WFA_boys_0_5_percentiles.pdf) )

Copied from the above tables:

Girls.....5%.....50%.....95%

Month 4.....5.2 kg....6.4 kg....7.9 kg

Month 6.....6.0 kg....7.3 kg....8.9 kg

Boys.....5%.....50%.....95%

Month 4.....5.8 kg....7.0 kg....8.4 kg

Month 6.....6.6 kg....7.9 kg....9.5 kg

Girls 4-6 mo total weight gain

5% total wt. gain = 6.0 kg – 5.2 kg = 0.8 kg

50% total wt. gain = 7.3 kg – 6.4 kg = 0.9 kg

95% total wt. gain = 8.9 kg – 7.9 kg = 1.0 kg

Boys 4-6 mo total weight gain

5% total wt. gain = 6.6 kg - 5.8 kg = 0.8 kg

50% total wt. gain = 7.9 kg - 7.0 kg = 0.9 kg

95% total wt. gain = 9.5 kg - 8.4 kg = 1.1 kg

Low & high weight gain for girls & boys between 5% & 95% between 4 & 6 months = 0.8 kg & 1.1 kg

There are, on average, 8.7 weeks in 2 months ( $[365+365+365+366]$ days/ 48 mo / 7 days/week = 4.348 wks/mo)

So the low kg per week weight gain is 0.8 kg / 8.7 wks = 0.092 kg/wk or **92 g/wk**

And the high kg per week weight gain is 1.1 kg / 8.7 wks = 0.126 kg/wk or **126 g/wk**

Changing grams to ounces (1 oz = 28.35 g), to the nearest quarter-ounce...

92 g/wk / 28.35 g/oz = **3.25 oz/wk**

126 g/wk / 28.35 g/oz = **4.5 oz/wk**

So I used **92-126 g/wk** or **3.25-4.5 oz/wk** as the average weight gain per week for breastfed babies between 4 & 6 months.

Below are the numbers for the **6-12 mo age range**

(Girl data from [http://www.who.int/childgrowth/standards/WFA\\_girls\\_0\\_5\\_percentiles.pdf](http://www.who.int/childgrowth/standards/WFA_girls_0_5_percentiles.pdf) & boy data from [http://www.who.int/childgrowth/standards/WFA\\_boys\\_0\\_5\\_percentiles.pdf](http://www.who.int/childgrowth/standards/WFA_boys_0_5_percentiles.pdf) )

Copied from the above tables:

Girls.....5%.....50%.....95%

Month 6.....6.0 kg.....7.3 kg.....8.9 kg

Month 12...7.3 kg.....8.9 kg....11.0 kg

Boys.....5%.....50%.....95%

Month 6.....6.6 kg....7.9 kg.....9.5 kg

Month 12....8.1 kg....9.6 kg....11.5 kg

Girls 6-12 mo total weight gain

5% total wt. gain = 7.3 kg – 6.0 kg = 1.3 kg

50% total wt. gain = 8.9 kg – 7.3 kg = 1.6 kg

95% total wt. gain = 11.0 kg – 8.9 kg = 2.1 kg

Boys 6-12 mo total weight gain

5% total wt. gain = 8.1 kg - 6.6 kg = 1.5 kg

50% total wt. gain = 9.6 kg - 7.9 kg = 1.7 kg

95% total wt. gain = 11.5 kg - 9.5 kg = 2.0 kg

Low & high weight gain for girls & boys between 5% & 95% between 6 & 12 months = 1.3 kg & 2.1 kg

There are, on average, 26.1 weeks in 6 months ([365+365+365+366]days/ 48 mo / 7 days/week = 4.348 wks/mo)

So the low kg per week weight gain is 1.3 kg / 26.1 wks = 0.050 kg/wk or **50 g/wk**

And the high kg per week weight gain is 2.1 kg / 26.1 wks = 0.080 kg/wk or **80 g/wk**

Changing grams to ounces (1 oz = 28.35 g), to the nearest quarter-ounce...

50 g/wk / 28.35 g/oz = **1.75 oz/wk**

80 g/wk / 28.35 g/oz = **2.75 oz/wk**

So I used **50-80 g/wk** or **1.75-2.75 oz/wk** as the average weight gain per week for breastfed babies between 6 & 12 months.