

**National Research Council of the National Academy of Sciences:  
Average Dye intake of 12,000 people over a period of 2 weeks  
1979**

<b>EATERS ONLY: Those eating some food dyes</b>					
<b>2 years +</b>	<b>Mean</b>	<b>50%</b>	<b>90%</b>	<b>95%</b>	<b>99%</b>
Orange B	2.2	1.7	4.5	5.5	7.8
Blue 1	4.1	3.3	8.6	11.0	15.0
Red 3	7.8	6.8	15.0	18.0	24.0
Red 40	29.0	24.0	57.0	70.0	100.0
Yellow 5	14.0	12.0	26.0	31.0	43.0
Green 3	1.0	0.8	2.2	2.8	4.3
Yellow 6	11.0	9.3	21.0	26.0	37.0
Blue 2	1.1	0.5	2.7	3.8	7.8
Blue 1 Lake	0.9	0.4	2.1	3.3	6.6
Red 3 Lake	2.5	1.6	5.9	8.1	15.0
Red 40 Al.Lake	4.1	2.4	9.1	13.0	27.0
Red 40 Ca.Lake	2.5	1.9	2.4	6.4	8.0
Yellow 5 Al.Lake	3.3	1.8	7.6	11.0	22.0
Yellow 5 Ca.Lake	0.1	0.1	0.2	0.3	0.6
Yellow 6 Al.Lake	1.9	0.9	5.2	8.1	14.0
Blue 2 Lake	<u>0.5</u>	<u>0.2</u>	<u>1.3</u>	<u>1.7</u>	<u>3.1</u>
<b>TOTALS</b>	<b>85.9</b>	<b>67.6</b>	<b>170.8</b>	<b>220.0</b>	<b>335.2</b>

**CONCLUSIONS:**

- People 2+ years old ate an average of **86** mg food dyes per day.
- The average of the lowest 50% was **68** mg per day
- The average of the top 10% was **171** mg per day
- The average of the top 5% was **220** mg per day
- The highest 1% ate an average of **335** mg per day

If we are going to test the colors for safety or cognitive function, shouldn't we want to know what the highest levels people eat might do to them?

**This was 1979. Where is the test to see if 335 mg is safe for kids?**

EATERS and NONEATERS together					
mg/day 2 yr +	MEAN	50%	90%	95%	99%
Orange B	1.60	1.20	3.80	5.10	7.50
Blue 1	4.10	3.30	8.50	11.00	16.00
Red 3	7.80	6.80	15.00	18.00	24.00
Red 40	28.00	24.00	57.00	79.00	100.00
Yellow 5	14.00	12.00	26.00	31.00	43.00
Green 3	0.99	0.73	2.20	2.80	4.30
Yellow 6	11.00	9.30	21.00	26.00	37.00
Blue 2	1.10	0.58	2.60	3.80	7.70
Blue 1 Lake	0.81	0.37	2.10	3.20	6.50
Red 3 Lake	2.40	1.50	5.70	8.00	15.00
Red 40 Al.Lake	3.70	2.10	8.80	12.00	26.00
Red 40 Ca.Lake	0.00	0.00	0.00	0.00	1.90
Yellow 5 Al.Lake	3.10	1.70	7.40	11.00	22.00
Yellow 5 Ca.Lake	0.01	0.00	0.05	0.10	0.23
Yellow 6 Al.Lake	1.80	0.78	5.00	7.90	13.00
Blue 2 Lake	0.21	0.00	0.68	1.20	2.30
<b>TOTALS</b>	<b>80.62</b>	<b>64.36</b>	<b>165.83</b>	<b>220.10</b>	<b>326.43</b>

### CONCLUSIONS:

- People 2+ years old ate an average of **81** mg food dyes per day.
- The average of the lowest 50% was **64** mg per day
- The average of the top 10% was **166** mg per day
- The average of the top 5% was **220** mg per day
- The highest 1% ate an average of **326** mg per day

The numbers are not so much lower when including NONEATERS, so probably most people are actually EATERS.

**This was 1979. Where is the test to see if 326 mg is safe for kids?**

## BREAKDOWN OF COLORS

Intake in Milligrams of the  
dyes (for EATERS ONLY)

	MEAN	50%	90%	95%	99%
<b>Orange B</b>					
	Mg				
1-5 mo	1.2	1.2	1.2	1.2	1.2
6-23 mo	1.4	1.2	3.1	3.5	6.3
2-5 yr	1.9	1.6	3.6	4.2	5.7
6-12 yr	2.1	1.8	1.2	1.8	5.5
13-17 yr	2.5	2.3	4.7	6.2	7.2
18-44 yr	2.4	1.6	4.5	6.0	8.2
45 +	2.2	1.7	4.3	5.4	8.3
2+	2.2	1.7	4.5	5.5	7.8
<b>Blue 1</b>					
	Mg				
6-12 yr	4.5	3.8	8.7	11.0	15.0
13-17 yr	4.6	3.9	9.1	12.0	16.0
2+	4.1	3.3	8.6	11.0	15.0
<b>Red 3</b>					
	Mg				
6-12 yr	9.9	9.7	17.0	20.0	28.0
13-17 yr	9.6	8.6	17.0	19.0	26.0
2+	7.8	6.8	15.0	18.0	24.0
<b>Red 40</b>					
	Mg				
6-12 yr	31.0	27.0	56.0	68.0	90.0
13-17 yr	33.0	28.0	63.0	75.0	100.0
2+	29.0	24.0	57.0	70.0	100.0
<b>Yellow 5</b>					
	Mg				
6-12 yr	15.0	13.0	25.0	29.0	37.0
13-17 yr	15.0	13.0	27.0	31.0	41.0
2+	14.0	12.0	26.0	31.0	43.0
<b>Green 3</b>					
	Mg				
6-12 yr	1.10	0.95	2.30	2.70	3.50
13-17 yr	0.85	0.58	1.90	2.50	4.20
2+	1.00	0.76	2.20	2.80	4.30
<b>Yellow 6</b>					
	Mg				
6-12 yr	14.0	13.0	24.0	29.0	41.0
13-17 yr	14.0	12.0	26.0	30.0	38.0
2+	11.0	9.3	21.0	26.0	37.0
<b>Blue 2</b>					
	Mg				
6-12 yr	1.6	1.0	3.4	5.3	11.0
13-17 yr	1.0	0.9	3.5	5.3	9.5
2+	1.1	0.5	2.7	3.8	7.8

Blue 1 Lake	Mg				
6-12 yr	1.0	0.6	2.5	3.5	6.4
13-17 yr	1.1	0.6	2.9	4.2	7.1
2+	0.9	0.4	2.1	3.3	6.6

Red 3 Lake	Mg				
6-12 yr	2.3	2.1	6.2	8.0	14.0
13-17 yr	3.1	2.2	7.1	9.4	15.0
2+	2.5	1.6	5.9	8.1	15.0

Red 40 Al.Lake	Mg				
6-12 yr	4.9	3.7	10.0	14.0	28.0
13-17 yr	5.2	3.5	12.0	16.0	28.0
2+	4.1	2.4	9.1	13.0	27.0

Red 40 Ca.Lake	Mg				
6-12 yr	1.8	1.3	2.6	2.6	2.6
13-17 yr	2.1	2.6	2.6	2.6	2.6
2+	2.5	1.9	2.4	6.4	8.0

Yellow 5 Al.Lake	Mg				
6-12 yr	4.3	2.8	9.5	13.0	26.0
13-17 yr	4.3	2.6	10.0	15.0	25.0
2+	3.3	1.8	7.6	11.0	22.0

			1000 mcg = 1 mg		
Yellow 5 Ca.Lake	Mcg				
6-12 yr	99	53	210	260	480
13-17 yr	95	59	160	220	330
2+	100	57	210	280	560
	Mg				
6-12 yr	0.099	0.053	0.210	0.260	0.480
13-17 yr	0.095	0.059	0.160	0.220	0.330
2+	0.100	0.057	0.210	0.280	0.560

Yellow 6 Al.Lake	Mg				
6-12 yr	2.7	1.5	7.2	9.2	15.0
13-17 yr	2.6	1.3	7.5	9.7	15.0
2+	1.9	0.9	5.2	8.1	14.0

Blue 2 Al.Lake	Mg				
6-12 yr	0.5	0.3	1.3	1.8	3.7
13-17 yr	0.5	0.4	1.4	2.0	2.6
2+	0.5	0.2	1.3	1.7	3.1