

## PARENT RATINGS OF BEHAVIOURAL EFFECTS OF BIOMEDICAL INTERVENTIONS

Autism Research Institute - 4182 Adams Avenue - San Diego, CA 92116

The parents of autistic children represent a vast and important reservoir of information on the benefits - and adverse effects - of the large variety of drugs and other interventions that have been tried with their children. Since 1967 the Autism Research Institute has been collecting parent ratings of the usefulness of the many interventions tried on their autistic children.

The following data have been collected from the more than 21,500 parents who have completed our questionnaires designed to collect such information. For the purposes of the present table, the parents responses on a six-point scale have been combined into three categories: "made worse" (ratings 1 and 2), "no effect" (ratings 3 and 4) and "made better" (ratings 5 and 6). The "Better:Worse" column gives the number of children who "Got better" for each one who "Got worse".

Note: For seizure drugs: The first line shows the drug's behavioral effects; the second line shows the drug's effects on seizures.

Parent Ratings						Parent Ratings						Parent Ratings							
DRUGS	Got	No	Got	Better :	No. Of	DRUGS	Got	No	Got	Better :	No. Of	DRUGS	Got	No	Got	Better :	No. Of		
	Worse <sup>A</sup>	Effect	Better	Worse	Cases <sup>B</sup>		Worse <sup>A</sup>	Effect	Better	Worse	Cases <sup>B</sup>		Worse <sup>A</sup>	Effect	Better	Worse	Cases <sup>B</sup>		
Aderall	39%	28%	34%	0.9:1	285	Desipramine	38%	25%	38%	1.0:1	61	Phenobarb.							
Amphetamine	47%	28%	25%	0.5:1	1174	Dilantin						Behaviour	47%	37%	16%	0.3:1	1052		
Anafranil	31%	37%	31%	1.0:1	351	Behaviour	28%	48%	24%	0.9:1	1049	Seizures	17%	43%	40%	2.4:1	458		
Antibiotics	30%	59%	11%	0.4:1	1617	Seizures	14%	36%	51%	3.8:1	377	Prolixin	34%	34%	33%	1.0:1	83		
Antifungals <sup>C</sup>						Felbatol	26%	45%	29%	1.1:1	38	Prozac	31%	33%	36%	1.2:1	975		
Diflucan	7%	42%	51%	7.2:1	185	Fenfluramine	21%	51%	28%	1.4:1	453	Risperidal	19%	28%	53%	2.8:1	401		
Nystatin	5%	48%	47%	10:1	727	Halcion	37%	30%	33%	0.9:1	43	Ritalin	44%	26%	29%	0.7:1	3540		
Atarax	26%	53%	21%	0.8:1	443	Haldol	37%	27%	35%	0.9:1	1119	Secretin							
Benadryl	24%	51%	25%	1.1:1	2512	IVIG	13%	45%	42%	3.2:1	31	Intravenous	8%	43%	49%	6.2:1	217		
Beta Blocker	18%	49%	33%	1.8:1	236	Klonapin						Transderm.	12%	47%	41%	3.6:1	78		
Buspar	26%	45%	30%	1.2:1	281	Behaviour	28%	33%	38%	1.4:1	156	Stelazine	28%	44%	27%	1.0:1	415		
Chloral						Seizures	38%	50%	12%	0.3:1	26	Tearetol							
Hydrate	41%	37%	22%	0.5:1	375	Lithium	27%	42%	31%	1.1:1	384	Behaviour	24%	45%	31%	1.3:1	1345		
Clonidine	21%	31%	48%	2.2:1	1090	Luvox	28%	36%	37%	1.3:1	120	Seizures	12%	33%	55%	4.5:1	721		
Clozapine	44%	39%	16%	0.4:1	79	Mellaril	28%	38%	33%	1.2:1	2023	Thorazine	36%	40%	24%	0.7:1	897		
Cogentin	19%	53%	28%	1.4:1	149	Mysoline						Tofranil	30%	37%	33%	1.1:1	698		
Cylert	45%	35%	21%	0.5:1	580	Behaviour	44%	40%	15%	0.3:1	131	Valium	36%	41%	23%	0.7:1	788		
Deanol	15%	55%	29%	1.9:1	195	Seizures	19%	58%	23%	1.2:1	57	Zarontin							
Depakene						Naltrexone	22%	46%	32%	1.5:1	200	Behaviour	34%	43%	22%	0.7:1	129		
Behaviour	25%	43%	32%	1.3:1	871	Paxil	27%	28%	45%	1.7:1	192	Seizures	21%	51%	29%	1.4:1	87		
Seizures	12%	30%	57%	4.6:1	569	Phenergan	30%	44%	26%	0.9:1	244	Zoloft	33%	31%	36%	1.1:1	212		

Parent Ratings						Parent Ratings						
BIOMEDICAL/ NON-DRUG/ SUPPLEMENTS	Got	No	Got	Better :	No. Of	BIOMEDICAL/ NON-DRUG/ SUPPLEMENTS	Got	No	Got	Better :	No. Of	
	Worse <sup>A</sup>	Effect	Better	Worse	Cases <sup>B</sup>		Worse <sup>A</sup>	Effect	Better	Worse	Cases <sup>B</sup>	
Vitamin A	2%	59%	39%	22:1	334	Vitamin B3	5%	55%	41%	9.0:1	487	
Calcium <sup>D</sup>	2%	62%	35%	14:1	988	Vit. B6 alone	7%	64%	29%	4.1:1	590	
Cod Liver Oil	3%	51%	46%	14:1	411	Vit. B6/Mag.	4%	49%	46%	11:1	5079	
Colostrum	6%	58%	37%	6.7:1	163	Vitamin C	2%	59%	39%	16:1	1306	
Detox. (Chelation)	3%	28%	70%	27:1	116	Zinc	3%	55%	43%	17:1	835	
Digestive Enzymes	4%	44%	52%	14:1	314	<b>SPECIAL DIETS</b>						
DMG	7%	51%	42%	5.9:1	4547	Candida Diet	3%	45%	52%	18:1	605	
Fatty Acids	4%	44%	51%	12:1	299	Feingold Diet	2%	47%	51%	23:1	645	
5 HTP	11%	55%	35%	3.3:1	66	Gluten-Casein-free diet	4%	33%	64%	18:1	724	
Folic Acid	4%	55%	41%	11:1	1100	Removed						
Food Allergy Trtmt	4%	37%	59%	14:1	290	chocolate	1%	50%	49%	36:1	1491	
Magnesium	6%	65%	29%	5.2:1	288	Removed Eggs	2%	61%	37%	21:1	882	
Melatonin <sup>E</sup>	10%	33%	57%	5.9:1	302	Removed Milk						
Pepcid	9%	61%	30%	3.2:1	64	Products/Dairy	2%	51%	48%	30:1	4950	
SAME	25%	46%	29%	1.1:1	28	Removed Sugar	2%	51%	47%	24:1	3392	
St. Johns Wort	11%	67%	22%	2.0:1	46	Removed Wheat	2%	53%	46%	26:1	2701	
TMG	14%	42%	44%	3.1:1	182	Rotation Diet	2%	50%	47%	20:1	678	
Transfer Factor	18%	51%	31%	1.7:1	39							

A. "Worse" refers only to worse behaviour. Drugs, but not nutrients, typically also cause physical problems if used long-term.

B. No. of cases is cumulative over several decades, so does not reflect current usage levels (e.g., Haldol is now seldom used)

C. Antifungal drugs are used only if autism is thought to be yeast-related.

D. Calcium effects are not due to dairy-free diet; statistics are similar for milk drinkers and non-milk drinkers.

E. Caution: While melatonin can benefit sleep and behaviour, its long-term effects on puberty are unknown.