



# The Wellness Family

Dr. Brayton Keeps You Informed

## Therapeutic Orphans

Harry Shirkey, a medical practitioner, coined the term "therapeutic orphans" over 50 years ago to describe how children are overlooked in medical research; his observations remain true today.

Despite the best efforts of the American Academy of Pediatrics (AAP) and the Federal Drug Administration (FDA), nothing has really changed.

## Overly-Prescribed Children

With an increase in available diagnostics, and the number of medications available to treat every possible disease increasing exponentially, it shouldn't be any surprise that the number of prescriptions being written for both adults and children have risen dramatically over the past several years.

A professor of pediatrics at the University of Arkansas for Medical Sciences, Tom Wells, encourages healthier diet and exercise before drugs. Obesity is the largest cause of high blood pressure, diabetes and many other conditions in children, but only about 10% of families will adhere to his diet and exercise recommendations.

## So Young and So Many Pills

In December of 2010, the *Wall Street Journal* reported the latest findings by Medco Health Solutions Inc. which determined that roughly 1 in 4 children and 30% of adolescents between the ages of 10 and 19 are taking a medication for a chronic condition in the United States.

Nearly 7% of those are on two or more such drugs according to the company's research for 2009. Dr. Robert Epstein, chief medical officer at Medco, said that these results were "shocking" to the company.

In September of 2018, the AAP reported that data from 2013-2014 showed 19.8% of children and adolescents used at least 1 prescription and 7.5% overall are taking more than one prescription at a time.

Using data polled for 2009 to 2014, it was determined that 8.2% of concurrent users of prescription medications were at a risk for a potentially major dangerous drug interaction. This was determined to be a bigger problem for those taking antidepressants and was more common among adolescent girls than boys, primarily due to the higher rates of the use of "acute medications" or those taken for short-term illnesses or issues.

## Pediatric Prescriptions

From statins to sleeping pills, it's clear that many of the drugs that were once considered necessary for adults only are being prescribed to children. IMS Health, a research firm, provided the *Wall Street Journal* with figures that confirmed this fact. Researchers believe that this rise may be caused by doctors and parents becoming "more aware of drugs as an option for kids" but the problem remains that many of these drugs have not been tested specifically for the pediatric population.

Danny Benjamin, a Duke University pediatrics professor, is specifically concerned about the "well established" drugs since the pharmaceutical companies have no



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incentive to test them for pediatric use. "We know we're making errors in dosing and safety," he said, and has suggested that parents themselves need to take the time to research any new medications suggested by their pediatricians. This can be done by reading labels, going to the FDA website, looking for current research at [www.pubmed.gov](http://www.pubmed.gov) and collecting clinical guidelines from groups like the AAP.

## Guesstimating Medicine

Since very few drugs have been specifically researched and tested with children, physicians are prescribing drugs based on a "best guess" as to the dosage, efficacy and even safety.

When treating children, prescribers will typically adjust the dosage approved for an adult to accommodate a child's weight; however, children process medication differently – sometimes faster, sometimes slower and sometimes turning it into poison. "Experience has shown us that we need to study drugs in children because they aren't small adults," says Ralph Kauffman, M.D., director of medical research at Children's Mercy Hospital in Kansas City, MO, "There are dynamics of growth and maturation of organs, changes in metabolism throughout infancy and childhood, changes in body proportion, and other developmental changes that affect how drugs are metabolized."

Dr. Joseph M. Wiley, Chief of Pediatrics at Sinai Hospital in Baltimore says, "If you extrapolate from an adult dose to a pediatric dose, you may be right ...you may be wrong." Adult drugs are still being prescribed to children on a regular basis, despite these facts.

### Off-Label Prescribing

The most recent research lists the following top ten drugs being prescribed to children without proper labeling: Albuterol, Phenergan, Ampicillin, Auralgan, Lotison, Prozac, Intal, Zoloft, Ritalin and alupent syrup.

This common practice of prescribing medicine to children that has only been tested and labeled for adult use is called "off-label prescribing" and it is done by physicians every day. A recent study published in the *Oklahoma State Medical Association Journal* did a systemic review of the literature and concluded that off-label medications in children remains a common practice for pediatric providers with the results showing that in 31 studies, off-label prescription rates ranged from 3.2% to 95%.

What needs to be understood is that "off-label" doesn't just mean it hasn't been properly tested on children. It also means that it is being prescribed for a purpose in which it was never intended.

Dianne Murphy, M.D., director of the FDA's Office of Pediatric Therapeutics has said, "We found out that you can't predict how kids are going to handle things." The problem is that once a medication has been approved for use in adults, it can legally be prescribed to anyone for any reason, despite the lack of pediatric testing or proper labeling.

Dr. Murphy has also stated that there are about 200 older drugs that have been studied in children, but new products come on the market all the time and their studies, while underway, will take time to complete. That means a lot of untested medications are made available to doctors for off-label prescribing to children.

### The Consequences

In hospitals and medical offices, pediatricians write off-label prescriptions everyday with the best of intentions. They make an educated guess about which drug to prescribe and the appropriate dosage for a child of this weight and age, hoping they're right. The problem with this practice is that the children pay the price with unexpected side-effects, worsening of the original complaint, allergic reactions or even coma and/or death.

For example, in the 1950s, the antibiotic chloramphenicol was widely used in adults to treat infections resistant to penicillin. But many newborn babies died after receiving the drug because their immature livers couldn't break down the antibiotic. Unfortunately, the actual facts in this matter have been difficult to determine. The British Pediatric Surveillance Unit believes this could be due to many factors, including a reluctance to report, even in an anonymous way, the number of deaths due to off-label prescribing of drugs to children. However, the European Medicines Agency believes that there is sufficient evidence that harm actually occurs and is under-reported.

What it comes down to is, whether a pediatrician's "best guess" as to dosage and efficacy of a drug is going to be good enough for parents; and whether they should be accepting, in blind faith, every prescription written.

### In Summary

Prescription drugs have their place, but many are attempting to treat conditions that could be related to small lifestyle changes. The number one reason for the growing use of pharmaceuticals is that we're not living a wellness lifestyle that includes healthier nutrition, exercising and decreasing stress for our families.

Many parents report an improvement in their child's quality of life after beginning routine Family Wellness Chiropractic care, so take a moment today to schedule a screening for your children.



Dear Patient,

Dr. Brayton is dedicated to providing you with the absolute best in family wellness care. So take a moment today to discuss with your Family Wellness Chiropractor any concerns you may have regarding your family's overall health and wellness.

This newsletter is provided to you by:

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