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It has been repeatedly pointed out in this newsletter that mainstream medicine has real problems effectively dealing with the chronic diseases of aging and especially cardiovascular disease, cancer, neurodegenerative diseases and diabetes. Preventive interventions and disease treatments are justified by relative risk reductions of 20-60% but when one examines the absolute benefit it is frequently so small as to render the treatment both uninteresting and merely a source of false hope. But this false hope is based on the feeling of security of "being treated with the best approach available" and a lack of understanding of what it really means to require 50 to 100 patients to be treated to achieve one beneficial result. False hope and security also distracts from alternative approaches which, in many cases, have much larger absolute benefits and fewer side effects but are off the mainstream radar.

But the patients are partly to blame. More than one generation has been conditioned to expect a solution to their mental and physical problems and their risks of chronic diseases of aging in the form of a prescription drug. Advice to exercise, avoid smoking, eat lots of fruit and vegetables, and avoid being overweight, while sound and evidence based, is not in general effective because acceptance, implementation and adherence are simply too difficult for many individuals. Psychotherapy in its various forms has largely been supplanted by a zoo of powerful mind altering drugs. At least one highly significant class of psychiatric drug used worldwide by millions appears to be almost if not totally ineffective. Also, dietary advice in some cases may be simply wrong or at least not evidence based. Supplements, most of which satisfy the desire for a pill, are in general opposed by mainstream medicine. In some countries, supplements are difficult to obtain in other than meaninglessly small doses.

This issue features a number of examples of alternative approaches. Included are EDTA chelation for secondary prevention of cardiovascular events in both diabetics and non-diabetics, curcumin to prevent progression from prediabetes to diabetes and to treat diabetes, vitamin D for stroke and cancer prevention, and lifestyle and diet for the prevention of cancer.

In addition, attention is directed at new and shocking ADHD prevalence statistics and the widespread use of powerful drugs traditionally used only for extremely serious psychotic disorders which now are in widespread but unapproved use to "treat" ADHD in children. How dangerous even the stimulants used for ADHD are is illustrated with a case history which ends in suicide.

And finally, if you need to restock your supplements, please remember that by ordering through the on-line vitamin store you will be helping to maintain the web site and the publication of IHN. You can find the store at <http://www.yourhealthbase.com/vitamins.htm>.

Wishing you and your family good health,

William R. Ware, PhD, Editor

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LONG-AWAITED RESULTS FROM CHELATION FOR CARDIOVASCULAR EVENT PREVENTION TRIAL

In 2003 a trial sponsored by the National Institutes of Health commenced enrolment. This was a randomized, placebo controlled trial of EDTA chelation therapy involving 40 infusions, 30 given once a week followed by the remainder given 2 to 8 weeks apart. Infusions lasted at least 3 hours in keeping with current protocols used in alternative medicine. Thus those enrolling were agreeing to sit for 120 hours total without knowing if the IV bag contained the active ingredient being tested. They all deserve some sort of medal for service to progress in medical science.

Enrolment was slow and in 2008 a long article written by individuals at Tufts University School of Medicine put forward arguments that the trial should be abandoned. They attempted to establish that it was “unethical, dangerous, pointless and wasteful.”¹ After a delay, the trial went ahead, eventually enrolling 1708 subjects aged 50 or more who had experienced a heart attack at least six weeks prior. Thus this was a secondary prevention trial and the primary endpoint was a composite of total mortality, recurrent MI (heart attack), stroke,

coronary revascularization (angioplasty or bypass) or hospitalization for angina. This composite of outcomes was necessary because otherwise the number of events was estimated to be too small to answer the question of benefit with statistical significance. The median follow-up was 55 months.

The results have just been published.² The primary endpoint occurred in 26% of the chelation group and 30% of the placebo group and yielded a relative risk reduction (RRR) of 18% and the number needed to “chelate” to achieve prevention of any of the acute events in the composite endpoints was 25. Many of the events counted in the composite endpoints were revascularizations. The analysis of subgroups found statistically significant benefit for heart attacks (RRR = 37%, NNT = 15). For those with prevalent diabetes, there was significant benefit measured by the composite endpoint (RRR = 39%, NNT = 8). It was concluded that the results “are not sufficient to support the routine use of chelation therapy for treatment of patients who have had MI.”

The reporting of this trial is unusual. An accompanying editorial went to some lengths to justify the publication of the report, discussing the scientific process, peer review and editorial scrutiny. In the same issue, an editorial was also published expressing concerns associated with matters as the withdrawal rate and potential for bias due to unintended unblinding. A high withdrawal rate is in fact not surprising given that a total of 120 hours sitting with an IV drip was required. Without apparent justification, concerns about the ethical principles and potential lack of the required medical competence of the alternative medicine centers involved in the study were raised.

Readers of this newsletter will no doubt observe that the relative risk reductions are similar to those considered quite satisfactory in mainstream medicine for the recommendation of a therapy and the NNTs are lower if not sensationally lower than recently discussed in previous issues for statins and anti-hypertensives in secondary prevention.

The results of this trial may be enough to make it easier for practitioners to use chelation therapy without hassle from colleagues or physician regulatory agencies (such as colleges of physicians and surgeons). It is unfortunate that the study was not able to examine the effect of EDTA chelation on diabetic peripheral vascular complications. While undergoing a chelation series for prevention and detoxification, your editor has actually seen individuals with dark blue feet scheduled for toe amputation recover pink feet, abandon their wheelchairs and in one case, play golf again. An unlikely placebo effect.

There is also what seems to be an important question. EDTA chelation is mostly removing toxic metals and dealing with overload. What if instead one simply takes, over a number of months, a group of natural oral chelators such as n-acetyl cysteine, green tea extract, curcumin, silymarin, alpha-lipoic acid (or R-lipoic acid) and quercetin plus selenium (to help with mercury removal) and a good multimineral pill to counteract potential deficiencies? Implementing a before and after toxic metal profile is not difficult.

A NEW ERA IN DRUGS FOR DIABETICS?

In 2010 the very popular diabetes drug *Avandia* (rosiglitazone) was withdrawn in Europe and severely restricted in the US when the increased risk of heart attack or cardiovascular death no longer could be ignored. In the US the FDA had already decreed in 2008 that approval of new diabetic drugs must include more stringent clinical trials to rule out cardiovascular toxicity and the European Medicines Agency followed suit in 2012.

It has now been 5 years since the first FDA action and the industry appears to have high hopes for new drugs developed or under development, and in 2009-2010 sales of one class of new drugs, the so-called DDP-4 inhibitors, increased by almost 200%. It is now assumed that the new drugs do not increase the risk of cardiovascular problems and the FDA even sets limits for acceptable statistical uncertainty. It is thus of interest to examine the question of significant benefits. After all, glucose lowering is undertaken to prevent diabetic complications.

The primary action of the DDP-4 inhibitors involves inhibition of the degradation of incretins, which are chemicals released from the small intestine after food intake and stimulate insulin secretion from the pancreas. But they are also thought to have direct effects on the heart, blood vessels and kidney, mainly by influencing one of the glucagon-like receptors. There are four DDP-4 inhibitors already approved. Hocher *et al*³ have summarized the supporting clinical trials with cardiovascular outcome endpoints. We focus on the two drugs which exhibited statistical significant benefit,

For the drug saxagliptin, in 8 randomized studies of 4607 diabetic subjects involving both comparator drugs or a placebo found the cardiovascular (CV) events were present in 1.1% of the treated group and 1.8% in the comparator group (drugs plus placebo). For CV mortality, heart attack or stroke, the numbers were 0.7% and 1.4% respectively with a relative risk reduction of 56%.⁴ The approximate corresponding number needed to treat (NNT) to prevent one event over the average duration of the trials (about 2 years) was 142.

For the drug linagliptin, a meta-analysis of phase III studies involving a total of 5239 subjects randomized to the drug and either or a comparator or a placebo found event rates for CV events of 0.3% in the treated group vs. 1.2% in the comparator group. For CV mortality,

stroke or heart attack, the corresponding figures were 0.3% and 1.0% with a relative risk reduction of 66%.⁵ The approximate numbers needed to treat to prevent one event over the average duration of the trials (about 2 years) were 111 and 142 for the CV event outcome and the composite outcomes respectively.

Relative risk reductions of 56 to 66% make a good story. Break out the champagne and send out the news releases! Diabetic pharmacology is finally making real progress in preventing rather than causing cardiovascular complications. But the NNT tell a different story—very little absolute benefit and the potential for a false belief among patients that they are receiving significant protection from the major complications of their disease when in fact the protection for any given individual appears trivial. Imagine a room with 100-150 diabetic patients at a support group meeting who are told that if they agree and if their doctors approve, they will be treated with a new drug which appears very safe. They can expect a risk reduction for cardiovascular events of about 60%. That should make everyone feel optimistic. Then in a remarkable display of honesty and transparency, one person is picked at random and told to stand up. The audience is told this is symbolic of the one person in the room actually predicted to experience a benefit. Everyone else is out of luck. The assembled diabetics might feel inspired to hiss or in some cultures throw their shoes or anything handy at the organizers of the meeting, especially if they represented the drug company involved. It is also clear why almost no one has ever heard of NNT and the above little story could never happen.

CURCUMIN PREVENTS PREDIABETIC PROGRESSION AND INDUCES NORMAL GLYCEMIA

There are millions of prediabetics in the world and many are unaware of the presence of this disorder or its strong indication for future type 2 diabetes. The commonly used definition of prediabetes is a fasting blood glucose of 100-126 mg/dL (5.6-7 mmol/L) and an HbA1c value of 5.7-6.5%, a measure of average glucose levels over approximately 3 months.

The Asian spice curcumin (turmeric) has been known for a long time as having anti-diabetic properties. A recent study investigated its power to prevent or delay the development of diabetes in individuals diagnosed with prediabetes.⁶ The study was randomized, placebo controlled and involved 240 subjects followed for 9 months. The intervention group was given 6 capsules per day each containing 250 mg of curcumin. The placebo was said to be indistinguishable from the curcumin. Subjects were excluded if they were positive for any one of the several thresholds for actual diabetes.

After 9 months, 16.4% of the controls had progressed to type 2 diabetes whereas for the curcumin group, none progressed. For the placebo group as a whole, all the parameters indicating glucose metabolism changed in an unfavourable direction or remained constant whereas for the curcumin group, there was a strong and steady change in the favourable direction which showed no indication of levelling off at 9 months. In the table below, the numerical results are given for 9 months vs. the baseline values.

INDICATOR	BASELINE	PLACEBO	CURCUMIN
FASTING GLUCOSE (mg/Dl)	103	108	86
ORAL GLUCOSE TOLERANCE (mg/dL)	143	155	123
HbA1c (%)	5.8	5.9	5.6
INSULIN LEVEL (pmol/L)	110	110	108
INSULIN RESISTANCE (HOMA-IR)	4.0	4.1	3.2
BETA-CELL FUNCTION (HOMA-β)	49	49	62

The oral glucose test involves giving a fasting subject a drink containing 75g of glucose and measuring the blood glucose after 2 hours. Guidelines generally give ≥ 200 mg/dL (11.1 mmol/L) as the threshold value for diabetes whereas prediabetics range from 140 to 199 mg/dL (7.7-11 mmol/L). The curcumin group achieved normal values. The same happened for fasting glucose and HbA1c dropped below the prediabetic threshold of 5.7%. Measures of insulin resistance as well as pancreatic beta-cell function dramatically improved. All of this was accomplished with a spice that is widely consumed in Asia.

It is not clear if the same results can be achieved with turmeric extracts commercially available in health food stores. However, Life Extension sells what they claim to be a highly absorbable preparation. If one attempts this preventive protocol, then all that appears needed to examine the effectiveness, even early on, is a glucose meter, since the drop in fasting blood glucose seen in this study is large. It is important to recognize that vitamin C supplementation can interfere with the performance of the strip chemistry in glucose meters and to test for this effect if significant amounts are taken.

No adverse effects were seen when parameters concerning kidney and liver function were monitored. No newly manifest coronary artery disease was seen nor were there any signs of edema. One subject experienced itching, two constipation, and one vertigo. No hypoglycaemia was observed and slight reductions in body weight and waist circumference were seen in the curcumin group. Thus 1.5 g of the extract used appears to be essentially safe.

While the goal of the study was to prevent progression to type 2 diabetes, the results actually indicate that on average, the intervention group not only did not progress, but was actually returned on average to normal glucose metabolism, i.e. they were no longer prediabetics. While one can never be sure, the probability seems high that this normalization should also dramatically reduce the risk of complications associated with elevated blood glucose and poor insulin sensitivity. In short, these results seem to qualify for the designation sensational. It should also be emphasized that the beneficial effects of curcumin had not levelled off at 9 months.

CURCUMIN MAY REVERSE TYPE 2 DIABETES

There have been remarkably few clinical studies that have addressed the question of the impact of oral curcumin on type 2 diabetics. This in spite of considerable experimental evidence of potential benefit. In fact the only controlled study in the peer reviewed literature appeared in 2012.⁷ In this study, 100 overweight/obese type 2 diabetics were randomly assigned to either a placebo or a capsule containing curcuminoids (300 mg daily dose). The cohort had an average duration of diabetes of about 7.5 years and about 60-70% were on oral hypoglycaemic agents only. A few were on insulin. As is illustrated in the table below, this intervention improved fasting blood glucose, HbA1c and increased insulin sensitivity.

INDICATOR	PLACEBO		CURCUMIN	
	BASELINE	3 MOS	BASELINE	3 MOS
FASTING BLOOD GLUCOSE (mg/dL)	151	147	154	131
HbA1c (%)	7.7	8.0	7.8	7.1
INSULIN RESISTANCE INDEX*	5.8	5.5	5.8	4.1

*HOMA-IR, calculated from fasting insulin and glucose levels

This study lasted only 3 months, and if one can extrapolate from the study of prediabetics discussed above, further improvement would be expected from continued treatment. Furthermore, the dose was much lower although the extracts may not have been identical. Nevertheless, one might expect larger changes if the doses had been at the level of the prediabetics study.

As discussed above, one can examine the success of this protocol, or a modified version where the dose is increased, simply by measuring fasting glucose. The safety of doses up to 12 g/day have been recently studied with only 7 out of 24 subjects experiencing any adverse effects, and those were considered very low level in terms of toxicity grade (diarrhea, headache, rash, yellow stool).⁸ The gold standard for success is the normalization of glucose metabolism and the elimination of the need for drugs. Combining curcumin therapy with carbohydrate restriction may also merit consideration.

VITAMIN D AND CANCER RISK

The initial indication that there was a relationship between vitamin D and cancer was the observation that solar radiation exposure appeared to reduce cancer mortality. This inverse relationship has now been identified for cancers of the breast, rectum, ovary, prostate, stomach, bladder, esophagus, kidney, lung, pancreas and uterus as well as for non-Hodgkin lymphoma and multiple myeloma. Once the validity of 25-hydroxyvitamin D as a serum indicator of vitamin D status had been established, the inverse relation between this marker and cancer incidence was established for colorectal and prostate cancer among others.

Modern medicine requires randomized controlled trials to answer such questions as “is vitamin D supplementation justified to prevent cancer or reduce mortality?” But there are also epidemiological studies such as observational follow-up studies and case-control studies. These are the equivalent of second class citizens. Han van der Rhee *et al*⁹ reviewed the epidemiologic studies in 2009 and found results mostly characterized as inconsistent or not all reaching statistical significance, although they did emphasize the importance of establishing the nature of the association with 25(OH)D. Most studies were designed in the era when 400 IU of vitamin D was thought significant in the context of the questions being addresses and even 800 IU, another common intervention daily dose was considered high. Today, vitamin D researchers consider 400 IU to be insignificant—trivial. Thus one can systematically review and meta-analyze but little is learned and studies with results that are in retrospect predictably negative and are constantly quoted to produce doubt.

In 2013 Lazzeroni *et al*¹⁰ published a review of randomized controlled trials that addressed vitamin D supplementation and cancer incidence and mortality. There are only four such trials that have been published. The largest by far and the highest profile was from the Woman’s Health Initiative (WHI). That study was designed when 400 IU was considered a wise and safe intervention dose. Thus the WHI trial can be dismissed out of hand although the null results they obtained have had a very negative impact on attitudes toward vitamin D and cancer. However, the WHI study did reveal a significant inverse relationship between 25(OH)D levels and incident colorectal cancer. Two trials used 800 or 850 IU/day and also obtained non-significant results, but their odds ratios were > 1.0. The most recent, which reported in 2011, involved men and women over 70. Baseline and one year 25(OH)D levels were measured in a small subgroup. The 800 IU/day elevated levels from 15 to 24 mg/dL (38 to 62 nmol/L) which clearly did not solve the deficiency problem in this group of older subjects. The null results from this and the other study, which used approximately the same dose and also involved elderly, can thus also be dismissed as probably uninformative due to low doses.

Finally, there is the Nebraska Study which reported in 2007.¹¹ In this study the 25(OH)D levels went from about 28 to 38 mg/dL (71 to 96 nmol/L) through supplementation with 1100 IU/day which provided a good opportunity to examine the impact of bringing individuals in to a fairly favourable vitamin D status. In this study the incidence of breast, colon, lung, uterus, lymph-leukemia-myeloma and a small number of other cancers was investigated with about 4 years of follow-up. One intervention arm used calcium only (1500 mg calcium citrate) and the other used calcium plus vitamin D. Comparison was with a placebo. When the cancer free

fraction was examined over time starting at one year from baseline to reduce the confounding by pre-existing disease, at about 4.5 years from baseline, there was a 77% relative risk reduction in cancer incidence for the calcium plus vitamin D vs. the placebo. The absolute risk reduction can be determined from the survival plot and was 0.04 (not a percentage) which indicated about 20 individuals needed to treat to prevent one cancer over 4.5 years. In this business, that is an impressive number. Calcium intervention alone yielded an insignificant RRR. Calcium was included because the primary endpoint of the study was fracture incidence and thus cancer incidence was a secondary endpoint.

Lazzeroni *et al* also list six randomized trials concerning vitamin D and cancer which are either ongoing or recruiting subjects. Five are placebo controlled. Vitamin D doses range from 1000 IU/day to larger amounts given periodically but when converted to daily doses (perhaps not equivalent) they range from 2000 to 6000 IU. Endpoints vary but these studies should provide important information.¹⁰

VITAMIN D AND STROKE

Vitamin D deficiency as measured by 25-hydroxyvitamin D (25(OH)D) levels is associated with risk factors for stroke such as hypertension, thrombosis, atherosclerosis and inflammation. Consistent with this, observational studies have suggested that the risk of ischemic (clot induced) stroke increases with reduced vitamin D status, although the results have been inconsistent.

A new study has just reported which appears to clarify this matter significantly.¹² Approximately 10,000 residents of Copenhagen for whom baseline 25(OH)D has been obtained were followed for 21 years, during which 1256 ischemic strokes were observed. A stepwise increase in ischemic stroke was found associated with a stepwise decrease in 25(OH)D levels. A comparison of those deficient (< 6 mg/dL) with those considered sufficient (\geq 30 mg/dL) yielded an increase in relative risk of 36% (absolute risk increase of 2%). If the comparison was with percentile categories, then individuals in the lowest category (severely deficient) had an 82% relative risk increase (absolute risk increase of 5%) compared to subjects in the highest groups (50% to 100% group). These risk increases were obtained after adjusting for confounding. Cumulative incidence increased exponentially with age with the incidence associated with vitamin deficiency always higher than that for sufficiency.

The authors also performed a meta-analysis (weighted pooled analysis of 10 studies including theirs). Increases in risk of a stroke due to deficiency ranged from 46% to 56% depending on the model used. These results were statistically significant with fairly tight confidence limits. Thus the association appears confirmed and adds to the importance of maintaining adequate vitamin D levels.

Supplementation with vitamin D was unusual in the study population. If one accepts that 50 ng/dL is optimum, then all subjects fell considerably below this level. One can only speculate regarding the results if the study had included subjects with ideal levels. But the prevalence of stroke is rather low, and if studies were now undertaken to clarify these issues, a very large intervention cohort would be required to obtain significant results. Vitamin D is not a money making prescription drug and thus we may never know the answer.

IDEAL CARDIOVASCULAR HEALTH STRONGLY CONNECTED TO CANCER RISK

The American Heart Association (AHA) recently developed a set of seven ideal health metrics to be used in measuring progress toward their 2020 goals of cardiovascular health. A retrospective follow-up study has just examined the ability of adherence to these goals to impact all-cause and cardiovascular mortality.¹³ The data was derived from the U.S. National Health and Nutritional Examination Survey from 1999 to 2002 with mortality information obtained from the National Death Index. The metrics were not smoking, body-mass-index < 25, physical activity at goal levels and a diet containing three or more daily servings of fruits and vegetables. To this was added total cholesterol < 200 mg/dL, diastolic blood pressure < 80 mm Hg, and fasting plasma glucose < 100 mg/dL. The researchers used HbA1c as a surrogate for fasting blood glucose, and the Healthy Eating Index for dietary assessment. Follow-up was for a median of 5.8 years. These metrics proved very successful in predicting risk and adherence yielded vastly better protection than medications. (see IHN March 2012).

These same AHA metrics now have been applied to a large cohort to examine the associations with cancer incidence.¹⁴ The proportion free from cancer was followed from 1987 to 2006. At the end of this period, for those with zero ideal CV health metrics the proportion free from cancer was about 0.68 whereas if 6-7 out of the total of 7 metrics were adhered to, proportion was about 0.86. This data yielded a relative risk reduction of over 50% with 5 individuals needed to adhere to 6-7 metrics to prevent one cancer diagnosis over 20 years. If smoking was omitted from the list, then the corresponding number was 8 to prevent one cancer diagnosis. Numbers this low are rare in preventive medicine.

Details and explanations of the metrics can be found on the internet under *Life's Simple Seven*, the slogan used by the AHA to communicate their recommendation to the public.

PREOPERATIVE STATINS AND HEART ATTACK RISK

In a meta-analysis published in 2010, Winchester *et al* found that perioperative statin treatment (for a short period prior the surgery) significantly reduced short term postoperative heart attack (MI) relative risk by 43% for non-cardiac surgery.¹⁵ For coronary bypass surgery (CABG) there was no statistically significant benefit, but for angioplasty (PCI) there was a 41% relative risk reduction for short term MI. The results for CABG were confirmed in 2012 in a meta-analysis published by the Cochrane Collaboration which found almost the same results using 6 more studies.¹⁶ Another meta-analysis by Chopra *et al* published in 2012 addressed some of the above issues in a different manner.¹⁷ They combined non-cardiac surgery and CABG using the 11 studies for CABG included in the Cochrane study and the 4 non-cardiac surgery studies included in the Winchester *et al* analysis and came up with a 47% relative risk reduction for MI with a stated NNT of 23 and statistical significance.

In an invited critique included at the end of the Chopra *et al* paper. Dr. D. A. Spain wrote that "there should be wider use of statins in naïve patients with certain risk factors and high-risk procedures and may even merit inclusion in the Surgical Care Improvement 2 Project as a process measure." In the caveats, he mentions that the results are dominated by cardiac surgery studies but he fails to mention that this dominating group *experienced absolutely no benefit as indicated by two consistent meta-analyses of the same eleven-study set*. Spain goes so far as to say that he is now convinced that statins should be given to all patients undergoing cardiac surgery but how to apply these findings to non-cardiac procedures appeared less clear. The critique is titled *Statins for Everyone*.

What is even less clear is how one can take 11 CABG studies, 10 of which were by themselves statistically insignificant and when subjected to meta-analysis were deemed

insignificant by two independent groups, and combine them with 4 studies of the statin impact on a variety of non-cardiac surgeries which were diverse (carotid, general, urologic, orthopaedic, and amputation) and then conclude that this combination, when it produced a statistically significant benefit, leads to the compelling conclusion of benefit in cardiac surgery. Your editor must be missing something!

Chopra et al also found a statistically significant 44% relative risk reduction in atrial fibrillation (AF) resulting from perioperative statin treatment with a NNT of 6. All-cause mortality was not influenced by this type of statin intervention in any of the meta-analyses. Thus for AF and PCI, there does appear to be benefit. However, this benefit almost certainly comes from non-lipid-lowering effects of the statins, so called pleiotropic effects. These probably partly involve the anti-inflammatory action and bring up the question, why not use a powerful anti-inflammatory instead?

ADHD. SOME NEW AND SHOCKING STATISTICS

Recent statistics from raw data obtained by the *New York Times* from the U.S. Centers for Disease Control show those 6.4 million children ages 4 through 17 have been diagnosed for ADHD sometime during their lifetime. Here are some details concerning prevalence given in an article by Alan Schwarz and Sarah Cohen (March 31, 2013).

- 11 % of school age children (15% boys, 7% girls)
- 19% of boys 14-17
- 10% of girls 14-17
- 14% of school age children covered by Medicaid.
- 41% increase in the past decade for children 4 to 17
- 10% of high school boys currently take ADHD medication

The article quotes Dr. William Graf, pediatric neurologist and a professor at Yale School of Medicine, as observing “those are astronomical figures.” He continued, “Mild symptoms are being diagnosed so readily, which goes well beyond the disorder and beyond the zone of ambiguity enhancement of children who are otherwise healthy.” Dr. Jerome Goodman from Harvard Medical School elaborates on this, “There’s a tremendous push where if the kid’s behavior is thought to be quote--unquote abnormal—if they’re not sitting quietly at their desk—that’s pathological, instead of just childhood.”

With the advent of the fifth edition of the famous and unique psychiatric diagnostic bible, the DSM, it is projected that the situation will only worsen. Altered criteria for diagnosis will allow more adolescents and adults to qualify for an ADHD diagnosis, according to critics of the changes. An acceleration might easily bring the percentage of school age children to near 20% in the next 5 to 10 years. We are already almost there with boys in the age range 14-17! That figure appears incredulous to Dr. James Swanason, professor of psychiatry at Florida International University and, according to the *Times* article, one of the primary ADHD researchers over the past 20 years. He adds. “If we start treating children who do not have the disorder with stimulants, a certain percentage are going to have problems that are predictable—some of them are going to end up with abuses and dependence. And with all those pills around, how much of that actually goes to friends? Some studies have said it’s about 30%.”

However, children with ADHD as well as other behavior problems are not just being given stimulants. More children are also being given powerful antipsychotic drugs such as *Abilify* and *Risperdal*, and in fact the use has skyrocketed in recent years.¹⁸ Not only is it not clear that these drugs are helpful in the context of ADHD, but the long-term effect on children’s developing brains has not been studied. Studies of effectiveness of antipsychotics on

children have been short term, measured generally in weeks, and half have involved children with low IQ.¹⁹ These drugs do not have FDA approval for ADHD or other childhood behavior problems and have traditionally been used to treat bipolar disorder, schizophrenia and other serious mental problems, as well as irritability associated with autism. In the US, 29-61%, of the use of antipsychotics in children is for ADHD, partly under the Medicaid program.¹⁸

The problems with side effects, addiction, suicide, and dramatically changed personality have been discussed at length in earlier issue of IHN along with the phenomenon that benefit is confused with simply change, and the changes are multiple and some highly undesirable.

DROWNED IN A STREAM OF PRESCRIPTIONS

In a feature story in the February 2, 2013 *New York Times* with the above title, Alan Schwarz relates the saga of a young man who talked a physician into giving him ADHD medication. His goal was to improve his focus while studying for medical school entrance exams. He had previously used *Adderall* in college for this purpose. The story relates how this resulted in his abuse of *Adderall*, disabling addiction and eventual suicide. The story includes a description of the parent's efforts to halt the downward spiral. The story includes some comments on this case from experts. The story provides a picture of flawed system that failed this young man. Google the article title.

Reference List

- (1) Atwood KC, Woeckner E, Baratz RS, Sampson WI. Why the NIH Trial to Assess Chelation Therapy (TACT) should be abandoned. *Medscape J Med* 2008;10(5):115.
- (2) Lamas GA, Goertz C, Boineau R et al. Effect of disodium EDTA chelation regimen on cardiovascular events in patients with previous myocardial infarction: the TACT randomized trial. *JAMA* 2013 March 27;309(12):1241-50.
- (3) Hoher B, Reichetzedler C, Alter ML. Renal and Cardiac Effects of DPP4 Inhibitors - from Preclinical Development to Clinical Research. *Kidney Blood Press Res* 2012;36(1):65-84.
- (4) Frederich R, Alexander JH, Fiedorek FT et al. A systematic assessment of cardiovascular outcomes in the saxagliptin drug development program for type 2 diabetes. *Postgrad Med* 2010 May;122(3):16-27.
- (5) Johansen OE, Neubacher D, von EM, Patel S, Woerle HJ. Cardiovascular safety with linagliptin in patients with type 2 diabetes mellitus: a pre-specified, prospective, and adjudicated meta-analysis of a phase 3 programme. *Cardiovasc Diabetol* 2012;11:3.
- (6) Chuengsamarn S, Rattanamongkolgul S, Luechapudiporn R, Phisalaphong C, Jirawatnotai S. Curcumin extract for prevention of type 2 diabetes. *Diabetes Care* 2012 November;35(11):2121-7.
- (7) Na LX, Li Y, Pan HZ et al. Curcuminoids exert glucose-lowering effect in type 2 diabetes by decreasing serum free fatty acids: a double-blind, placebo-controlled trial. *Mol Nutr Food Res* 2012 August 29.
- (8) Lao CD, Ruffin MT, Normolle D et al. Dose escalation of a curcuminoid formulation. *BMC Complement Altern Med* 2006;6:10.
- (9) van der RH, Coebergh JW, de VE. Sunlight, vitamin D and the prevention of cancer: a systematic review of epidemiological studies. *Eur J Cancer Prev* 2009 November;18(6):458-75.
- (10) Lazzeroni M, Serrano D, Pilz S, Gandini S. Vitamin d supplementation and cancer: review of randomized controlled trials. *Anticancer Agents Med Chem* 2013 January 1;13(1):118-25.
- (11) Lappe JM, Travers-Gustafson D, Davies KM, Recker RR, Heaney RP. Vitamin D and calcium supplementation reduces cancer risk: results of a randomized trial. *Am J Clin Nutr* 2007 June;85(6):1586-91.
- (12) Brondum-Jacobsen P, Nordestgaard BG, Schnohr P, Benn M. 25-hydroxyvitamin D and symptomatic ischemic stroke: an original study and meta-analysis. *Ann Neurol* 2013 January;73(1):38-47.
- (13) Ford ES, Greenlund KJ, Hong Y. Ideal Cardiovascular Health and Mortality from All Causes and Diseases of the Circulatory System among Adults in the United States. *Circulation* 2012 January 30.

- (14) Rasmussen-Torvik LJ, Shay CM, Abramson JG et al. Ideal cardiovascular health is inversely associated with incident cancer: the atherosclerosis risk in communities study. *Circulation* 2013 March 26;127(12):1270-5.
- (15) Winchester DE, Wen X, Xie L, Bavry AA. Evidence of pre-procedural statin therapy: a meta-analysis of randomized trials. *J Am Coll Cardiol* 2010 September 28;56(14):1099-109.
- (16) Liakopoulos OJ, Kuhn EW, Slottosch I, Wassmer G, Wahlers T. Preoperative statin therapy for patients undergoing cardiac surgery. *Cochrane Database Syst Rev* 2012;4:CD008493.
- (17) Chopra V, Wesorick DH, Sussman JB et al. Effect of perioperative statins on death, myocardial infarction, atrial fibrillation, and length of stay: a systematic review and meta-analysis. *Arch Surg* 2012 February;147(2):181-9.
- (18) Olfson M. Epidemiologic and clinical perspectives on antipsychotic treatment of children and adolescents. *Can J Psychiatry* 2012 December;57(12):715-6.
- (19) Pringsheim T, Gorman D. Second-generation antipsychotics for the treatment of disruptive behaviour disorders in children: a systematic review. *Can J Psychiatry* 2012 December;57(12):722-7.



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