

YOUR ORTHOMOLECULAR
GUIDE FOR HEALTHY BABIES
AND HAPPY MOMS

Vitamins & Pregnancy

the real story

*“Vitamins & Pregnancy:
The Real Story will fill a
void that has been present
for decades.”*

—Ralph Campbell, M.D.

Helen Saul Case

Contents

Acknowledgments

Foreword by Ralph Campbell, MD

Preface

Chapter 1. Preg Trek

Chapter 2. Vitamins and Pregnancy: Fact versus Fiction

Chapter 3. Vitamin C and Pregnancy

Chapter 4. Vitamin E and Pregnancy

Chapter 5. Vitamin A and Pregnancy

Chapter 6. Vitamin D and Pregnancy

Chapter 7. The B Vitamins and Pregnancy

Chapter 8. Minerals and More

Chapter 9. Pregnancy Issues

Chapter 10. Postpartum Problems

Chapter 11. Healthy Babies and Healthy Kids

Appendix

Additional Reading

References

About the Author

Foreword by Ralph Campbell, MD

I am a father and I am a pediatrician. Both of “us” realize that with experience, we do things better. If only we could make our care for our firstborn retroactive, especially in terms of applying what we have subsequently learned about good nutrition! Well, here is your chance to do it right straight away. An ounce of prevention is worth a ton of cure. Helen Saul Case gets right to the heart of the matter by beginning at the beginning—an oft-neglected practice—with a discussion of nutritional supplements when you are just considering pregnancy.

She continues with what is to be done after pregnancy is confirmed. Thinking ahead is the epitome of true motherhood and demonstrates a keen desire to do everything possible for the good of her offspring. At the same time, the mother-to-be can help herself to better personal health, which translates to having more energy and a better outlook on life, all of which benefits her baby. Why do we need this book? Because doctors do not receive much, if any, useful training in nutrition.

I had zero nutrition courses when I was in medical school. Afterward, the pharmaceutical companies provided precious little information of value about vitamins. Their attempts at formulating “prenatal vitamins” have been, at best, a cruel joke. Quantities are too low. Ferrous sulfate makes pregnant women nauseous. Artificial color in the tablet helps no one. The vitamin or mineral du jour—the rare nutrient that “modern medicine” currently accepts—is introduced and touted in a new formula.

Well, that is better than nothing, but only just. Folic acid to prevent spina bifida; calcium “for healthy bones and teeth”; all given in the dose that meets the so-called “safe” (that is, pitifully inadequate) standard of the times. Preparing mothers with what they really need for optimal health means giving optimum quantities of nutrients to do the job. Orthomolecular medicine recommends more for good reasons. This book is full of good reasons that will enable women to tactfully negotiate the issue with their obstetricians.

My experience has been that most doctors give little thought to the subject, and simply automatically issue their favorite brand of a designated daily, prenatal vitamin-mineral. That is cookie-cutter medicine, and it isn’t good enough. The United States has a poor world standing as far as infant mortality goes. That is sad, and that can be improved immediately. This book will fill a void that has been present for decades. Helen Saul Case is the daughter of orthomolecular medical writer Andrew W. Saul. He has reason to be proud.

Our children who have picked up our message have certainly benefited and

are able to pass it on. Mrs. Case shares information with you in a readable, nontechnical, but solid, scientifically grounded manner. I am impressed that she has foreseen almost every instance that would prompt questions and has provided clear, appropriate answers for everything from breastfeeding to postpartum depression. I hope that this book will be widely read, digested, and acted upon. It is very much needed.

Preface

I want to write this book for one simple reason: I wish I'd had one like this when I was pregnant. Having been born and raised with nutritional medicine, I have always felt comfortable with the use of vitamins and confident in both their safety and efficacy. When I found out that I was expecting a child, I felt I should have been able to seamlessly transfer this knowledge and apply it to care for my "new" pregnant body. But now, even I was nervous about taking nutritional supplements. It was one thing to be secure about my own choice to take vitamins. It was yet another to make this decision for a life I hadn't even met.

I started questioning what I knew. I started looking for clarification. Nothing motivates a person to learn quite like the responsibility of having a child. I wanted to make sure I was doing the right thing. I didn't just want to be sure. I wanted to be really sure. Was I taking enough of the vitamins my baby needed? How could I make certain I was getting the most beneficial dose? (An amount I suspected differed from your standard prenatal vitamin.) I knew I had a lot to learn, but by golly, I was going to learn it. I believe the information we get from our doctors about vitamins is extremely insufficient. Pregnant women will simply be told about the standard government recommendations, provided there is even time for this discussion.

I spent far more time in the waiting room than I ever did in an appointment with my obstetrician. There was little opportunity to ask detailed questions and get thoughtful, thorough responses. I doubt the word "orthomolecular" would have been in any of the answers anyway. We need to have access to all the information out there, not just some of it. Many women and their babies would benefit from getting an abundance of nutrients during pregnancy, especially if there are health concerns, but the word "orthomolecular" is also conspicuously absent from most pregnancy health guides and parenting books.

I strongly believe that natural, alternative, drugless solutions are of great value during pregnancy. Upon investigation, you will find that many doctors and researchers agree. We need to know as much as we can about all of our options so we can make the best decisions for ourselves and for our babies. This book was written and edited throughout my own pregnancy, from the day

I found out I was going to have my second child and into the first two years of my new baby's life. I'll share with you what I have experienced with both of my children and what I have learned about the value of optimal doses of vitamins during pregnancy. *Vitamins & Pregnancy: The Real Story* isn't just another pregnancy health book.

This one is different. Typically, other pregnancy guides flatly discourage the use of vitamins at even the slightest increase over government recommendations. None of them really address the role of high doses of vitamins for a safe and healthy pregnancy. It is time for a change. Instead of searching through facts and myths about vitamins and pregnancy, this book is intended to make your life just a little easier by putting a collection of this valuable vitamin information conveniently into your hands.

PROCEED WITH CAUTION

If you are looking for a book about the miracles of modern medicine and pregnancy, read something else. If you want to know how nutrition and vitamins can make life before, during, and after pregnancy a whole lot easier, remarkably healthier, and a lot less scary for both you and your baby, read on. An orthomolecular pregnancy is a healthy pregnancy. I have seen it work up close and personal. So, too, did my mother. When you need information, it's nice to know where to find it. This book is for first-time moms and repeat moms alike. It is for parents about to begin this incredible journey and parents who have been down this road before. In fact, this book is for everyone who has suspected there is more to the story about vitamins and pregnancy than they may have heard. If you are ready for the real story, then you have come to the right place.

We know all too well what an immense personal responsibility we have when we bring life into this world. The best decisions are those we make when we come armed with information. Since we only get part of the story about vitamins at the doctor's office, I'd like you to hear about the rest of the story here. You will notice that I quote extensively from the Orthomolecular Medicine News Service in this book. This is intentional. You can subscribe, free of charge, to Orthomolecular Medicine News Service articles at <http://orthomolecular.org/subscribe.html> and access the article archive at <http://orthomolecular.org/resources/omns/index.shtml>.

This noncommercial, peer-reviewed publication contains research, clinical experience, and analysis from over twenty-five natural healing physicians and experts. You'll also notice that I often quote my father, Andrew W. Saul. This is also intentional. I think that if you are going to quote someone, you may as well pick the person who you think can say it best. After all, my father has been teaching others (that includes me) about vitamins and natural healing

for over thirty years, and I happen to like his delivery. We are a father-daughter orthomolecular team. It seems only natural to me to quote the most influential person of my professional career.

CHAPTER 1 Preg Trek

“A grand adventure is about to begin.” (Winnie the pooh)

Pregnancy is hard. Parenthood is harder. It is tough, tiring, and terrifying to bring new life into this world and then try to keep it healthy and out of prison. It is decided. You are going to have a baby. Life is about to throw you a million hardballs all at once (not counting the ones that got you into this position) and you left your helmet at home. So grab the nearest object, sister, and start swinging. We are going to put words on these pages that you can use to help you get through what may be one of the toughest times in your life. Let's tell it how it really is, and then let's make it better.

DESPITE OUR BETTER JUDGMENT, WE ARE PREGNANT

“If you want to know what it's like to have a fourth child, imagine you are drowning and someone hands you a baby.” (Jim Gaffigan)

The experience of being a mom is disconnected from the love we feel for our kids. It is separate. It is “other.” Motherhood is hard, messy, unrelenting, and physically exhausting. We are going to feel crappy once in a while. We are going to be drained dry. It is insanely hard to be pregnant. To give birth. To be a parent. Feel free to take a moment and mentally curse the carefree families in their unstained clothes in the “if you place presliced cookies on a baking tray with your kids, they will love you more” commercials. Take a moment to roll your eyes at the “happy family on vacation” advertisements.

Where are all the screaming children in the Disneyland commercials? Scratch that—where are all the screaming parents? Truly, I'm not here to depress you. We are going to keep it real, is all. This is no time to sugarcoat the truth. I love my children dearly. I would do anything for them. But this book is not about our emotional capacity to love another human, in or out of the womb. We are here to dive headfirst into what can plague us during pregnancy and after, and how vitamins and nutrition can help. One thing is for sure: pregnancy and motherhood is drastically harder when it is compounded with health issues. Let's try to make them never happen. If you've got them, let's work to make them go away.

Good Health and Real Choice

I don't know what I would have done without vitamins. On top of all that

motherhood gifted me in a big basket—with a card that said “Ha ha!”— there is no way I could have handled the inevitable stress and health issues that come with pregnancy and being a mother of two without them. Vitamins gave me options. I did not have to rely solely on a medical system filled with doctors who study standardized medicine and dole out medications, nor did my children. Vitamins gave me choice. I was not reliant on drugs: over-the-counter, prescription, or illicit. Vitamins gave me comfort. I did not fear side effects, complications, dosage errors, or death. Vitamins gave me a safe way to prevent and treat illness. We all get sick. How we get better is where we differ.

WAITING FOR BABY

“By far the most common craving of pregnant women is not to be pregnant.”
(Phyllis Diller)

It seems there is a lot of time to think and reflect while pregnant. In fact, it seems like there is little else to do. This was especially true while I was pregnant with my first child. With my first, my daughter, I spent my days thinking “I’m pregnant. I’m pregnant. I’m PREGNANT. I’m going to have to give BIRTH,” in unceasing loops. I had plenty of time to obsess. What is one to do with all those moments we have to think each day? Worry, that’s what. And worry I did. About everything and anything.

To get some answers, I signed up to baby newsletters and chat rooms and blogs. E-mails arrived weekly that kept me up-to-date about the current size of my baby (comparing her to some fruit or vegetable) and also kept me terrified with endless lists of seemingly crucial “do’s and don’ts” that had me convinced that eating a smidgen of soft cheese or changing my kitties’ litter box was going to do me or my baby permanent harm. There was no end to the things I could work up a panic about: Crib safety. Car seat safety. Proper infant car seat installation. Paint fumes. Microwaves. Logos on baby clothing that made her a walking advertisement. Pink clothes are not okay.

Pink clothes are okay. No raw fish sushi, darn it anyway. What vitamins to take. Giving birth. I don’t have enough baby clothes. I don’t have the right baby clothes. Must buy more blankets. Baby will suffocate. Must get rid of all blankets. And so on. Endless, torturous, emotionally draining internal dialogues debating all the things that might go wrong, all of the things I don’t even know I might be doing wrong, all of the things that I must buy because I Have To Have Them Before I Have A Baby ... And then here come all those well-meaning folks, with their hands on your belly threatening to sugar you up with orange juice so the baby will kick.

I kept hearing people tell me that time was flying by. For whom? Them? I

spent each day of nine months in feverish anticipation. They smile and want to know how everything is going. I was exhausted. I was puking. I was scared stiff. Instead of sugar-coating my answer with a polite, “Oh, just fine thank you,” I found myself telling the truth. As they got a little paler, I felt a little better. We can’t be Little Miss Sunshine all the time.

Shower Power

This is the true genius of the baby shower. In years BC, or “before child,” I used to think such an event was tedious and unnecessary. More to the point, I thought baby showers were positively awful. Must we send each tiny outfit slowly around this great circle of cooing females to be meticulously admired for each ridiculous and pointless detail before the guest of honor opens another damn present? Does everyone have to bring all their hyperactive children and let them eat every sugar-encrusted morsel in the place and scream over every conversation just to show the poor new mother what she’s in for? Must we all touch her protruding stomach?

Must we play juvenile pregnancy games? Maybe it’s not polite to measure how large around the middle she’s become. Even a good friend, who became a mother years before me, didn’t invite me to her shower, knowing full well she was doing me a great kindness. My own pregnancy did not change my mind. A few months along and in a fit of hormonal rage, I vowed I would never have a baby shower. Ever. Okay. I had sex. I got pregnant. This has happened billions of times on this planet. This isn’t exactly rocket science. My children were planned, for goodness’ sake.

Why do I deserve “congratulations”? I called my mother and I declared I didn’t need a shower and I didn’t, and I quote, “want people to go out and buy a bunch of pink and blue sh*t.” Patiently, my mother listened. And bless her heart, she said nothing and waited. With time comes clarity, and thankfully I have not been spared. First, I considered that maybe the baby shower really wasn’t for me, it was for the baby. I relaxed my stance a bit and I resigned to have one. There had to be something I could put on the shower page of the baby book. Of course, I had a few rules.

We would serve liquor—to make the party less boring for everyone else-and ban all big-belly games. I, of course, would not drink. I have heard women declare that being pregnant was the best time of their lives. “I loved being pregnant,” they would say. I would try to understand, but I never really got it. I did not “enjoy” pregnancy. I found it to be a daily challenge of aches and pains and new bodily symptoms I couldn’t have dreamed up if I tried. Pregnancy books left out a whole lot on those pages. (I confirmed this after my first baby was delivered.)

The giggly woman who taught the child-birthing classes at our hospital was irritatingly upbeat as she explained things so simply to us, as if we were the babies, that we learned nothing new at all. As much as I read, nothing could have prepared me, truly, for the experience of pregnancy and new motherhood. In the end, it was each pregnant woman for herself. And no matter how supportive my husband was, I felt alone. Suddenly, I found this intense irrational need to be around a bunch of women who were going to do nothing but be positive and uplifting and excited and congratulatory.

I wanted the fantasy of the carefree pregnancy so often pictured in magazines and on TV. I wanted to pretend, for a couple of hours, that motherhood was the classical music and soft focus pastel image we see in a Johnson's baby shampoo commercial. I wanted a baby shower. I called my mom and told her, who was going to make sure I had one anyway. I actually began to look forward to the event, and I planned an outfit accordingly. Most days, my husband's joy and anticipation carried me through my pregnancy.

But that one day, just that one, when a whole gaggle of women were excited for me and for baby, changed who I was. I didn't care that it was all temporary. It didn't matter that the few hours of escapist bliss in no way represented motherhood and the trials and tribulations yet to come, save those transcendent moments when a child smiles at you for the first time or runs through your yard with the wind in her hair. It was the best day of my whole pregnancy. I vowed, from this point on, I would attend all future baby showers with bells on.

I would coo, congratulate, and pass every precious puffy little outfit around the room and be genuinely excited to do so. I would stay to the bitter end with a big smile on my face. A whole roomful of people helpful and supportive of you? Bring it on. For goodness' sake, we don't get enough of these moments when we are a mom. Then I realized—the shower isn't for the new baby on the way. It's for the mother who needs, very much, at this moment, a temporary feeling of complete and resounding love and support. Looking back, I wish the shower had happened months sooner. The whole day was so special, I found myself wishing I had had its energy with me for a greater part of the pregnancy experience.

Planning for Baby

With my first baby, I spent my entire pregnancy planning how I wanted things to be: now, during birth, and after. This is because first time moms' minds need distraction. They need stuff to do. We have our jobs to keep us busy, but before children take over the house, there are still plenty of hours in the day to plan, to dream, and to obsess. Thoughts have all day to flow in and out and between all those other tasks we attend to. This is why there are so

many pregnancy books: there is still time to read and think, especially before your first child. And then you will probably never read them again (except for this one, of course).

With my free hours I made mental lists, made demands, bought supplies, cleaned house, cooked (not nearly enough) meals to put in the freezer, and loaded my iPod with hours of Ayurvedic pan flute and sitar music to soothe me during labor. I bought breath mints for the hospital, packed my emergency duffel, and put it by the front door, inclusive of a neatly typed and color-coded list of important phone numbers to hand to a nurse to notify folks of the birth, just in case my cell phone was dead or I couldn't speak or my husband went missing. I even carried a towel in my car and an extra pair of pants.

(My husband's response to my fear of water breakage in public simply was, and without jest, "You could always wear Depends." You may wonder why he didn't suddenly go missing.) I never did need that package of breath mints. Correction, I probably needed them, but there was a heck of a lot more I cared about than my breath at that particular time, and no one dared suggest otherwise. I found most labor-preparedness activities are distracting at best; some were ultimately useless.

I had an overnight bag full of things I never touched. I had a birth plan I didn't even look at. The house didn't stay clean for long. And yet after all of it, we had a beautiful healthy baby and nothing else mattered. There is much we cannot control during our pregnancy, and I'm not about to pretend I have all the answers. But what I do know is that there is a great amount of valuable vitamin research out there that can help make our pregnancies as successful, comfortable, and stress-free as possible. The old saying is that life is a journey, not a destination, but in this case we are waiting expectantly for a "destination"—a baby in our arms. Let's make the journey to get there as good as it can be.

Reality Strikes

It figures, too, after all of that worrying, nothing could have prepared me for the real time, real life, engrossing and passionate, visceral experience of motherhood. After I gave birth, all that stuff I worried about, like, um, childbirth, was far more intense than I had ever anticipated. It looked like I had the right to feel the way I had all of these months. At three in the morning, moments after her birth, my husband stared down at her, this beautiful, vibrant little girl, and with tears in his eyes.

"No wonder why people have so many of these." I paused, I blinked, and I looked down below my waist. I was still laid out on the table, knee-deep in the results of biology, with doctors working carefully for well over half an hour on

the final checklist of details to attend to after any baby is born. Nurses worked to clean me and the surrounding fifteen feet. Originally, when I walked into the delivery room, I scoffed at dust and hairs on the floor, vowing to not touch the tile with my bare feet. Now, I marveled how it was possible that the room could have been as clean as it was, given what I just witnessed had happened here, and happened on a daily basis.

I looked back to my husband, still very much in the moment with his new baby and I said, "I can't." And I couldn't. After everything I had gone through, from day one of being consciously aware of my pregnancy until now (and I still did not know how hard the days ahead would be), I could not for the life of me figure out why people ever had more than one child. They must be out of their minds. For those of you that are already parents, and those of you that are parents of more than one child, you already know why. Now, I do, too.

The Second Child

Yesterday, I found out I was pregnant. This will be our second child, and my husband is thrilled. Having done this before, I am all too well aware of what is in store for me over the next nine months and beyond. I, too, am excited to have another baby. I'm not as excited about all it takes to get there. Sometimes it seems as if there is no place for women to express feelings like this, save the numerous online pregnancy posts and the underground market of tell-all motherhood books.

With so many families out there longing for children that they might never be able to have, for families who have suffered miscarriages, still-births, and any number of the other issues that come with making and having a child, it can sound downright ungrateful when those of us with the good fortune to be pregnant, carry to full term, and deliver healthy babies come around and start complaining. We may feel pressure to hush up about how we really view motherhood. Sure, we are excited.

That anxious, feverish, twitchy kind of excited. We may also be terrified. Looking for comfort? Good luck. You'll be scared silly by all the don'ts, nevers, stay aways, and better nots plastered in prenatal pamphlets, posters, and popular parenting magazines. You can't sit in the waiting room of the doctor's office without ample access to issues of "Fretful Mother" (as Marge is seen leafing through on an episode of *The Simpsons*), the pages of which will have you second-guessing absolutely everything you do before, during, and after baby is born.

After already having had one child, no one can accuse me of not knowing any better. Those of you choosing to go around again know this, too. So why do we do this? It's because babies are awesome. And if you want to have a baby

of your own, there are specific procedures you must follow to get there. While there is nothing easy about choosing a surrogate or the adoption process, I feel that those of us who are biologically staged and ready to bring life into this world have a tough job on our hands, and we need more than just a bit of understanding and sympathy.

With my son on the way, kicking merrily in my womb as I write, I am pleased to report to having a much more “present” pregnancy. I don’t spend my time worrying, obsessing, purchasing, or fretting. I spend my time chasing after my daughter, identifying every object known to man that she points to, giggling at silly faces we make, coming up with creative ways to make sure she gets plenty of vegetables, rediscovering everything in the world through the eyes of a person who’s never seen any of it before, and simply playing the day away.

My daughter has brought me into the present moment: this moment. There is just no escape. Kids don’t really give you a chance to reflect for long on what has already happened, or dwell on what the future holds. Sure, you can spend time cycling through those thoughts once they have gone to bed, but while they are up, they demand your constant attention one way or another with the necessities of the day: clean diapers, meals, and teaching them how to be human.

Kids force you to be here now, and I can only imagine that as the number of children in one’s house increases, so decreases the opportunity to live anywhere but right here, right now. As I prepare for baby number two (if you want to call it “preparation”), so much has become less important, as he has become more important. The color of the nursery isn’t particularly significant. Matching furniture isn’t exactly obligatory. A diaper stacker may not be the “essential convenience” it is advertised to be.¹ What he will wear doesn’t really bother me either. Yeah, I’ve purchased boy outfits, but only a few.

My self-restraint didn’t exist when my previously pregnant self shopped for girl clothes. (Everything is just so darn cute.) But now, instead of buying one of everything in every color and every future size, maybe if he ends up in a pink-flowered onesie his sister used to wear because he’s accidentally defiled the rest, and laundry just hasn’t made into the machine that day, that’s okay. No one but my husband and I will see him adorned in daisies, and who knows, maybe he’ll grow up to be an ecologist. With my daughter there were so many things I thought I had to have.

The hours I spent in the ob-gyn office scanning through parenting magazines (far longer than I ever spent with a fetal Doppler pressed to my abdomen or a tape measure across my belly) certainly didn’t help ease my hunger to own all-things-baby. Gosh, it was so expensive to have a child— but look at all of

these things I can't possibly do without! I would read over the ten top-rated jogging strollers, and would be in awe that some cost \$700 or more. What about The Perfect Nursery? This had to be something to dwell upon, and I was happy to do so. I have to be a great mother. I mustn't compromise. I would scribble down frantic little lists and stuff the oddly ripped pieces of paper into my purse. Baby swings. Baby carriers. Play yards. Linens. Maternity clothes ... my, that's a cute dress!

(Online later, I'd find not a single thing in that store magazine advertisement that would cover my rear end for less than \$300 bucks. Forget that!) Sweating and hyperventilating, I'd be called back to the examination room, always surprised that my blood pressure hadn't shot straight up. I prepared the house from roof to floorboards. I cleaned, disinfected, re-cleaned, redecorated, and reorganized. Furniture, bedding sets, baby changing and bath time supplies, infant toys, and clothing were purchased.

But when all was said and done, many of these absolutely critical, positively indispensable, incredibly necessary-to-have baby items remained untouched, still wrapped in factory packaging, now waiting to be donated. What have I bought so far for baby number two? An extra car seat and a crib. Done. It is immensely liberating to face the coming of the new baby with the experience of already being a mom. Plenty of folks will judge my parenting, but that's inevitable. The difference is whether or not I care about their opinion.

Before, I could be likened to the incredibly self-aware, selfconscious middle schooler who is convinced that all eyes are on her at all times scrutinizing her appearance. Do I fit in? Are my jeans cool? Do I look enough like the others? Now in my thirties, I have a more casual, carefree demeanor. For example, "I don't care if I'm seen in this, I'm just going to Walmart" and other I'm-a-mother-now wardrobe decisions come easy. Such decisions also come with the wonderful side benefit of not giving a damn about what other people think. My baby girl manages this relaxed attitude without even knowing it.

She is often dressed in a cozy gray hoodie and is, of course, mistaken for a boy. She smiles. I smile. Neither of us bother to correct them. It's just not a big deal. We can probably imagine a crazed bride scanning the pages of Vogue for the perfect dress and accessories, and venue, and decorations, and body, and groom—only to find herself feeling diminished. There is much that is out of reach if you are a bride to be, or a new mother to be. There is plenty to want, if you want it. And for those who do want it, it can cost a small fortune. A bride may end up mortgaging her future for that \$20,000 Vera Wang dress, the perfect favors (which nobody keeps anyway), a delectable catered meal, the hippest DJ in town ... all for Just. One. Day.

I think of the brides or grooms that spent so much time planning their

weddings, they forgot to fully consider the person they are about to marry. We have all been to those events where the wedding itself was dreamlike and amazing, except for the fact that you can tell the couple isn't going to make it past year two. It's pretty sad, really, but the planning of a marriage, or a baby, can sometimes cloud the reality of the situation. Know in your soul the partner you are about to spend the rest of your life with is the right one. Know in your soul that when you are going to have a baby, having a healthy, happy child is the only things that matters.

During my first pregnancy, I was perfectly willing to be drowned in the social expectation of motherhood. Fussing over all the products I thought I needed to purchase was a welcome diversion from my physical concerns. "The baby is going to fit through where?!" I spent my nights fretting. During my second pregnancy, I set aside all judgment, including my own of myself. I avoided baby newsletters, sensationalist advertising, and parenting magazines. I focused on the wonderful child I already had, and considered how even more wonderful it would be to have two.

I took care of my baby, and consequently, I took better care of myself by focusing on what was in front of me and nothing else. There is so little we truly can "control" during pregnancy. I decided to spend more time centered on what I could influence. My health was one. The way I spent my time was another. I have yet to meet my son-to-be, but he has already taught me so much. I know I will love him for a million reasons, but at the moment I love him because he gave me a second chance to be pregnant—this time more happily so—and for that, I thank him. My baby girl is waking up from her nap, so I'll let my keyboard cool down for a bit. It's time to play.

The Care and Feeding of the Stork

When I was six and a half months pregnant, I went to my ob-gyn for the standard spend-at-least-a-half-an-hour-waiting-and-probably-more-for-a-two-minute-pregnancy-checkup appointment. Things were moving rather quickly that day, which is always nice. It wasn't so much the waiting that would get to me, but the heat. Those little exam rooms are stifling. I'm confident they are kept at a balmy ninety-five degrees Fahrenheit year round. Once while waiting and sweating right through my shirt, I tried to crack the door open, hoping some cooler air would drift in from the hallway.

I was politely asked to keep it shut; otherwise the doctor wouldn't know I was ready to be seen. Note to self: Wear absolutely nothing but a classy spaghetti string tank top and shorts to my next pregnancy checkup even in the dead of winter. Yes, underwear optional. Properly dressed today, I was comfortable as could be. As she checked my blood pressure, the nurse asked how I was feeling. I said, "Great!" She replied, "No complaints, then?" "Nope." "Most

people have a very long list,” she said. (I guess she would know, right?) “But it is great that you are doing so well.” And I was.

Aside from the growing pains of mommyhood and pregnancy —my shoulders getting tight from carrying my one-and-a-half-year-old around, and my back lower back getting sore from time to time from the weight of a blooming belly —I really had nothing to complain about. Really. This was my second pregnancy. My first had been more physically challenging as my body adjusted to the new experience of growing a human being. (When those hips expand ... !) I had my share of nausea and exhaustion, especially early on, but no medical issues whatsoever.

This pregnancy was going even more smoothly. I was less nauseous this time around, too, though still tired and in need of the occasional nap. Once again, I was free of any medical issues. My doctor entered the room. He measured my pregnant belly, told me my glucose tests were great, and, since I had no questions for him, he sent me on my way. I think our face-to-face time was a minute and a half, tops. On his way out he said, “You are making my job easy, Helen!” Now it is possible these folks are just being polite. Or perhaps I’m an anomaly.

I have yet to meet anyone who was raised like me, from the womb into adulthood: where vitamins and nutrition were routinely used for the successful treatment of our illnesses and, equally important, the prevention of illness. My brother and I never met our pediatrician. It’s true. We had one; we just never needed to go. My parents didn’t even know exactly where the office was until one day they drove by it simply by chance. My mom said, “Hey, isn’t that it?”

Lest my parents appear to look recklessly irresponsible, consider this: the secret of good health is not about avoiding doctors, but about not needing to go. I saw it as a child, I saw it as a college student, I saw it as an adult, and now I see it as a mother. Of course, when you are pregnant, it is prudent that you visit your doctor or midwife. I sure appreciated my doctor’s help, and he liked that I was healthy. Good diet and vitamins have always served me well. And now, my baby was benefiting. This book will help your baby share in these benefits, too.

CHAPTER 2 Vitamins and Pregnancy: Fact versus Fiction

It is rare that anyone addresses the most important question: “What works best?” (W. Todd Penberthy, PhD, Research Professor, University of Central Florida)

There are literally hundreds of prescription and over-the-counter prenatal vitamins on the market. They are essential for healthy pregnancies, but they

may not meet the needs of all women and all babies. In optimal quantities, vitamins help ensure healthy, full-term babies and healthy moms. But what is “optimal?” With so much conflicting information out there, it’s time to look into what nutritionally-oriented physicians have found beneficial. It’s also time to look at research that has been largely ignored. In a healthcare system dominated by modern pharmaceutical medicine, orthomolecular (nutritional) medicine tends to linger quietly in the shadows.

It’s only fair that we take the time to level the playing field a bit. In all fairness, medical doctors aren’t trained to utilize vitamin therapy. If there is a problem during pregnancy, doctors reach for drugs, not nutrients. But we have options. We have access to safe, natural, drugless solutions. We can avoid prescription drugs and use vitamins and nutrition to tackle pregnancy problems instead. “Drugs are not the answer, unless you are a drug company.”

We’re going to debunk the myths that say vitamins are harmful and bring forward the evidence showing that vitamin supplements are helpful in pregnancy, even at dosages above our government recommendations. In the following chapters, we’ll look at each vitamin and its benefits and its safety, one by one. I don’t believe in scare tactics that discourage moms from taking therapeutic doses of vitamins. I believe in what orthomolecular doctors have found to be true in practice, I believe in evidence, and I believe in what I have experienced through two healthy pregnancies.

Be as informed as you can be. You will decide for yourself if nutritional medicine is right for you. Talk to your doctor or midwife. Look into the research. Do not believe, even for a second, that what is fed to you in the mass media is the whole story. (Does anybody still believe everything they see on TV is true?) Keep reading; keep researching. As you may well know, it is a liberating experience to be in charge of your own health.

WHAT DOES THE WORD “ORTHOMOLECULAR” MEAN?

“Nutritional Medicine is Orthomolecular Medicine.” (Orthomolecular Medicine News Service)

By definition, “ortho” means “right.” Orthomolecular medicine is nutritional medicine: it is the practice of using nutrients that are normal and familiar to the body to prevent and cure disease. Two-time Nobel prize winner Linus Pauling came up with the name “orthomolecular” to describe using the “right” molecules to heal the body and to keep it healthy in the first place. It doesn’t have to be complex; it basically means we should eat right and take our vitamins. “Anyone who wishes to become familiar with orthomolecular medicine may do so by simply beginning with a wholefoods, sugar-free diet,

and a few vitamins,” says orthomolecular medicine pioneer Abram Hoffer, MD.

This is something many of us are trying to do anyway during pregnancy. “Orthomolecular” describes a way of living that promotes health and discourages disease. It encompasses a way of feeding the body with the very substances it requires to live. We depend on nutrients to survive. So does our baby. We depend on getting the right amounts of these nutrients to be healthy. It’s true that some people require more nutrients than others.

Sure, “orthomolecular” is a fancy word. But you do not need to use the word—rather, the goal is to do this word. Orthomolecular medicine is twofold: prevention and treatment. Both are of value during pregnancy. Our goal is to achieve the best possible health for ourselves and for our baby by obtaining effective doses of nutrients. If there are health issues present during pregnancy, nutritional therapy is all the more important.

Pregnancy is no time to “test” medications. Instead, you can choose to address illness by providing your body with the right nutrients to help it heal and do so safely. For those of us entrenched in a medical perspective, it may still be hard to believe: nutritional treatment is effective, cheap, and free of side effects. It is safer for us and far safer for our baby. I know it works, and I have two healthy kids to prove it. My mom would say the same about us; she proved it a generation before me. “Anyone who wishes to become familiar with orthomolecular medicine may do so by simply beginning with a whole-foods, sugar-free diet, and a few vitamins.” (Abram Hoffer, MD)

PRE-PREGNANCY NUTRITION

All women of childbearing age should take a multivitamin at the very least. Here’s why. Half of all pregnancies in the United States are unplanned. Half. While there is never a bad time to start paying attention to good nutrition, taking care of your health before you get pregnant is ideal. We aren’t eating enough fruits and vegetables every day. In fact, only a sorry 11 percent of Americans get the recommended amounts of fruits and vegetables in their diet. The advice is simple: make half of each plate fruits and vegetables. Better yet, make them organic fruits and veggies.

All you have to do is take a look at what’s on the average checkout line at the grocery store or the dinner table to know this is not happening. There is no substitute for a diet rich in fruits and vegetables. Could we at least manage to take a vitamin tablet? A little of a vitamin may be enough to prevent deficiency. More often, dosages of vitamins in amounts much higher than government-recommended dietary allowances are required for ideal health. Dosages will depend on the individual and the need. A dry sponge holds more

liquid; sick or stressed body requires more vitamins. So, too, does a pregnant gal. This is why doctors recommend taking prenatal vitamins, and with good reason. Will your prenatal vitamin be sufficient?

It might. You and your baby may also benefit from individualized doses of nutrients best suited to you and your needs. Good nutrition can help you get pregnant and stay pregnant. Already had a baby? Good nutrition helps your body prepare for the next one and heal from the last one. Have you used hormonal birth control in the past? Among many other side effects, the pill depletes your body of vitamin B2, vitamin B6, vitamin B12, folic acid, vitamin C, magnesium, and zinc. It would be wise for any woman who has used hormonal birth control to address nutrient insufficiency before she becomes pregnant.

It's Time to Say "No" to Drugs

The media spends so much time telling you what vitamins not to take that many women have been scared off beneficial supplements, even multivitamins. What is more concerning is the sheer number of people taking pharmaceuticals: 70 percent of Americans (seventy!) take at least one prescription drug, and so does their dog. More than half of Americans take two medications, very many of which, such as antidepressants, can be harmful to a developing baby. To top it off, women are more likely to take medication than men. "Women receive more prescriptions than men across several drug groups, especially antidepressants," reports Mayo Clinic.

This means many unplanned pregnancies could also come with many unwanted drug-induced birth defects. Since half of pregnancies are unplanned, there is no "good" time for a woman of reproductive age to be on prescription drugs. Those first few months—and before—are especially crucial for the development of a normal, healthy baby. This is no time to be taking prescription drugs that could harm an infant. And yet, many women will and do. Others may stop taking medications too late. Some will be advised to continue taking their prescription anyway.

Many drugs come with warnings on the label of the little orange container that caution not to take the medication while pregnant or nursing or if you intend to become pregnant. Others have that information crammed onto a tissue-thin insert. I read one that said, "Do not take this drug if you become pregnant." Well, if you know you are pregnant, maybe that means something to you. Unplanned pregnancies and the simple fact that we may not know we are pregnant until we miss a period means our baby may be exposed to a medication that specifically warns against use during pregnancy at the earliest stages of development. "Just say no to drugs" is still very good advice. We know to say no to alcohol and tobacco while we are pregnant.

We can say no to pharmaceuticals, too. Think about it: if it isn't good for a developing baby, how can it really be good for us? I imagine that many women who take pharmaceuticals for their health issues must feel they have no other choice; perhaps the medication feels like (or has been presented as) the only option. "Well, I only took the medication for a few weeks. Hopefully the baby will be fine," we may tell ourselves. Maybe our baby will be fine. Maybe she won't. In and of itself, the word "maybe" is not one we want to use to describe whether or not our child is healthy and developing normally.

What an awful feeling that must be. It's time to lift this burden—we do not have to be on drugs to be well. There is another way. Many of us already know this. As Abraham Lincoln said, "You cannot fool all the people all the time." We are getting smarter. We are figuring it out. People who have taken pharmaceuticals and have failed to get better know full well that drugs do not have all the answers. People who have suffered devastating consequences of prescription medication side effects, or have children who have suffered, aren't going to accept it anymore.

Many people have witnessed this broken system, and find this reason enough to seek healthier, natural alternatives. No, we will not be fooled. There is a safer way. There is a better way. When 75 percent or more of doctor office visits and hospital visits involve prescription drug therapy, we cannot count on our doctors, or the media, to recommend vitamins instead of medicines. We must choose to protect our own health and that of our unborn children. We must look into nutrition for ourselves. Nutrients will always be safer than drugs. Period.

THE IDEAL PREGNANCY

What would a perfect pregnancy look like? Feel like? How would it begin? I think delivery by stork would be pretty neat, but the next best thing might look something like this: Carolyn Dean, MD, ND, who has authored over thirty books on natural health, describes her idea of an ideal, "peaceful pregnancy." She knows that for most of us, "a completely balanced and harmonious life" may not be within our grasp, but let's set that aside for a moment. "Ideally, both partners would abstain from cigarettes, alcohol, coffee, over-the-counter drugs, and prescription medications for the six months prior to conception," says Dr. Dean. "They would eat organic food that was free of genetic engineering, pesticides, herbicides, hormones, and the other chemical adulterants common in factory-farmed and processed foods.

For both partners, stress would be at a minimum, as it would be regulated by prayer and meditation, deep breathing, daily exercise, and a loving graceful attitude toward life and other people." Then, in the ideal pregnancy, these

healthy activities would all continue, says Dean. The new mom would pay special attention to her diet, exercise, get regular massages, meditate, and she and her partner would create a safe and secure home environment for their baby that is free of harmful substances like cigarette smoke and toxic cleaning products. Sounds pleasant, doesn't it? A healthy mom, a healthy baby, and an effortless birth. Yes, this would be ideal.

But what if this was also possible? What if mothers were able to get as close to the perfect pregnancy as possible? How would they feel? How would their babies fare? How would both mom and baby's health benefit, now and in the future? If you consider it, there is really nothing impossible here. There are many women who could do exactly as Dr. Dean describes. Many others could at least start doing some of it. And many families would reap resounding benefits if they paid such close attention to every part of their health.

We can put our health and our baby's health first, and the benefits of such a lifestyle are not limited to pregnancy. Imagine, as my father would call it, "the epidemic of health" that would occur if all Americans strived to live this way. If it was possible we would also get all the vitamins, minerals, and other nutrients our bodies required through careful selection, preparation, and ingestion of our food. But we don't. Our diets are lacking, to put it mildly, and to make things worse, much of the food available in the grocery store is not made of the choicest, healthiest ingredients. This makes it even more important that vitamin supplements be part of our pregnancy.

Maternal Nutrition and Fetal Development

The health of a baby starts with what the mother consumes, but it doesn't end there. According to the Journal of Nutrition, "Promoting optimal nutrition will not only ensure optimal fetal development, but will also reduce the risk of chronic diseases in adults." Want your baby to be healthy now and later? Eat right and take your vitamins. "Nutrition is the major intrauterine environmental factor that alters expression of the fetal genome ... namely, alterations in fetal nutrition and endocrine status may result in developmental adaptations that permanently change the structure, physiology, and metabolism of the offspring, thereby predisposing individuals to metabolic, endocrine, and cardiovascular diseases in adult life."

What we eat not only impacts the healthy development of our baby in the womb but also our child's likeliness of acquiring certain diseases later in life. This idea of "fetal programming" and the potential of "fetal origins of adult disease" means while we are pregnant we make a profound, lifelong impact on our baby each time we eat a meal and choose to take our vitamins. A limited supply of nutrients can permanently change their physiology and metabolism. And, says Nutrition journal, "these 'programmed' changes may

be the origins of a number of diseases in later life, including coronary heart disease and the related disorders stroke, diabetes, and hypertension.”²⁶ It’s a pretty amazing thought, really. And yet doesn’t it make perfect sense? Perhaps it goes even further—a whole lot further than you might think, says Andrew W. Saul, PhD, author and coauthor of many orthomolecular health books, including *The Vitamin Cure for Infant and Toddler Health Problems*.

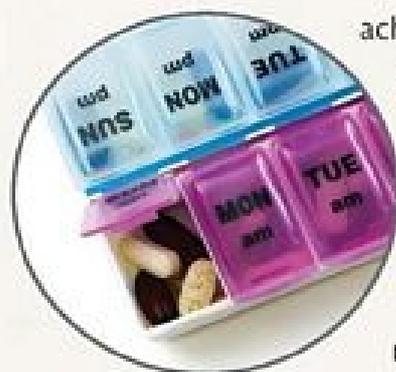
“Ova (human eggs) are formed during the fetal stage of a female’s life. In other words, all of a woman’s own eggs are actually formed while she was developing inside her mother, before she herself was born,” Dr. Saul says. “This means that what your grandmother ate significantly contributed to your anatomy. Think that one over: what looks to be purely a genetic problem may in fact be largely a nutritional one. I call this “dinner table heredity.”

Just because a problem comes out of the womb does not mean that that problem is genetic and only genetic. Science has known for decades that many a specific birth defect is a direct result of a specific vitamin deficiency.”²⁷ In a sense, pregnant women literally nourish their own grandchildren. Add the concept of “dinner table heredity” to environmental factors and eating behaviors learned from our parents, and nutrition may be a bigger piece of the puzzle than simply genetics.

Multivitamins protect against heart defects

Maternal multivitamin intake is significantly beneficial to a growing baby and her mother. The journal of obstetrics and gynaecology canada states, “promoting the use of folic acid and a multivitamin supplement among women of reproductive age will reduce the incidence of birth defects.” A study in the american journal of epidemiology found taking multivitamins during pregnancy could prevent heart defects. In their discussion the authors state, “we found that women who reported using multivitamin supplements in the periconceptual period were at significantly lower risk of having babies with congenital heart defects than were women who reported not using multivitamins.”

Vitamins are absolutely essential for a healthy pregnancy: before, during, and after. Expectant parents want healthy babies and to more easily navigate pregnancy's many ups and downs. Problem is, standard prenatal vitamins don't come close to meeting the needs of all women. Nutritional (orthomolecular) physicians have known this for decades. Many women would benefit from an abundance of nutrients during pregnancy and the advantages are clear: healthy babies and happy moms.



Helen Saul Case has lifelong experience with nutritional medicine, having been born and raised with it her entire life. Still, she found pregnancy challenging, with new aches, pains, and amazing symptoms "I couldn't have dreamed up if I tried." It became all too clear that how to best use high doses of vitamins to safely and effectively address health issues was conspicuously absent from the scores of pregnancy health books out there. It's time for a change!

Vitamins & Pregnancy: The Real Story is a comprehensive, yet easily readable nutritional guide to optimal health—for both you and your baby—that tackles the topics other pregnancy books don't, including:

- The many ways nutrition helps to ensure your baby's best development *in utero*—with lifelong benefits for mother and child
- How vitamin C helps prevent birth defects, postpartum hemorrhages, and even stretch marks; vitamin E helps prevent miscarriage; magnesium helps cramping legs and sore, aching backs; and extra vitamin B6 alleviates morning sickness—without a prescription!
- Optimal vitamin and mineral intakes during pregnancy and breastfeeding
- What the research says about efficacy and safety
- Nutrition-based advice to help alleviate more than 35 pregnancy issues, from acid reflux and yeast infections, to postpartum challenges—including depression and losing weight

Helen Saul Case is the author of *The Vitamin Cure for Women's Health Problems* and coauthor of *Vegetable Juicing for Everyone*. She has also published articles in the *Journal of Orthomolecular Medicine* and the *Orthomolecular Medicine News Service*. The daughter of natural health pioneer Andrew W. Saul, Case lives with her family in western New York State.

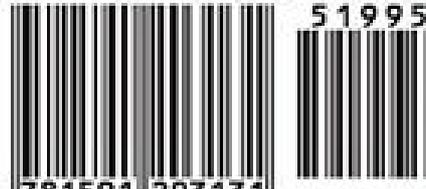
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