

Living with ITP

ANSWERS TO COMMON QUESTIONS





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ANSWERS TO COMMON QUESTIONS

INTRODUCTION

Throughout the year, the Platelet Disorder Support Association (PDSA) receives hundreds of questions from many people. These have come by phone calls, emails, faxes, and letters from ITP patients, their families and caregivers, doctors, nurses, students, and others affected in some way by this platelet disorder. This publication is a sampling of some of the questions we have received and our replies to those questions.

The objective of this booklet is to offer some help, some guidance, and some hope for those living with ITP. We don't have all the answers, and since things are changing daily, new questions arise daily. To learn more specific details about ITP, including diagnosis, treatment, research, and support, please refer to the list of other publications we offer (inside back cover) or visit our Web site at: www.pdsa.org.

To make this guide easy to use, the questions are arranged under a number of key headings. These include: Diagnosis/Finding a Doctor, Conventional ITP Treatment, Splenectomy, Vaccines, Coping/Living with ITP, Pets with ITP, Complementary and Alternative Treatments, and Diets/Foods/Supplements.



Diagnosis/Finding A Doctor

1. LOOKING FOR AN ITP DOCTOR

Q I am looking for an ITP doctor — someone who wants to get to the root cause of my child's ITP, not just address the symptoms — low platelets. How do I find a good ITP doctor?

A Unfortunately, most of the usual treatments for ITP only involve dealing with the low platelets, not the root cause of the disease, which is not known in most cases. Sometimes low platelets are associated with another infection (e.g. *H. pylori*) or another disease (e.g. hepatitis) and clearing up the infection or treating the other disease helps. Rarely, low platelets can also be caused by medications (e.g. antibiotics) or even induced by nutritional substances (e.g. quinine water).

PDSA has a diagnosis question list at http://www.pdsa.org/about-itp/diagnosis-questions.html that may be helpful in discussions with your child's doctor.

2. FINDING A HEMATOLOGIST TO TREAT ITP

Q How can I find a hematologist in my area who is a specialist in treating my ITP?

A Since hematology is a large and complex field of medicine, hematologists often specialize in a particular disease group. Many physicians who practice hematology are also trained in oncology (called Hematology-Oncology) and it is important to find specialists who devote a considerable portion of their time to hematology, not oncology. Below are suggestions to find a hematologist who specializes in treating ITP and similar diseases:

Search the "Find a Hematologist" portion of the American Society of Hematology's Web site (http://www.hematology.org/Patients/FAH.aspx).

<u>Locate the largest teaching hospital</u> near you and ask for the head of hematology or the specialist in non-malignant hematology.

<u>Visit the PDSA Discussion Group</u> (http://www.pdsa.org/forum-sp-534/index.html) and ask others about doctors in your area.



<u>Contact the Best Doctors</u> organization, a fee-based service: *http://www.bestdoctors.com/*.

Search the membership list of <u>The American Medical</u> Association at *http://www.ama-assn.org*.

Contact PDSA (pdsa@pdsa.org or toll free 877-528-3538). We maintain a list of specialists who may be able to help. We also have many ITP Support Groups around the country and some members may recommend hematologists in their area.

3. QUESTION ABOUT INHERITED THROMBOCYTOPENIA

Q Does PDSA have any patient information for families about inherited thrombocytopenia?

When a patient inquires about inherited thrombocytopenia, PDSA usually sends them an article written by Dr. Jonathan Drachman that appeared in *Blood* several years ago. The vocabulary is not very patient friendly but it provides some useful, relevant information. Dr. Drachman is no longer researching this topic and gave all his files to Dr. Amy Geddis (San Diego, California) who has done some further work in this area. She is at: *ageddis@ucsd.edu*. Perhaps she has some information for you as well. Note: Dr. Drachman's article is available by contacting PDSA at *pdsa@pdsa.org* or calling the office toll free at 877-529-3538. The Genetic Alliance offers a "Does it run in the family" toolkit that might be helpful. The information and a link on our Web site is here: http://pdsa.org/about-itp/and-families.html

4. QUESTION ABOUT ACUTE VERSUS CHRONIC ITP

Q Could you please explain the difference between 'acute' vs. 'chronic' ITP and how this relates to adults and children?

A Most cases of ITP in adults are persistent, lasting more than six months, or 'chronic,' lasting more than a year. ITP in children is often considered a different disease than ITP in adults because children usually recover more easily and have the 'acute' form of the disease, usually recovering in six months or less. In fact, most children with ITP recover in about three months.



About 10 to 20 percent have persistent ITP beyond six months. However, ITP in adolescents is more like ITP in adults with a greater chance of it lasting a long time, becoming chronic.

5. QUESTIONS TO ASK A NEW DOCTOR

What specific questions should an ITP patient ask their new doctor?

A Below is a list of questions and suggestions to enhance your healthcare provider selection and communication. Pick and choose.

About the Practitioner

How much experience have you had treating patients with ITP?

How many ITP patients do you treat each year?

Are you affiliated with any research group or hospital that specializes in non-malignant hematology?

What is your treatment philosophy?

Do you welcome a patient who researches the disease and treatments?

Do you welcome patient input on their care?

What is your opinion about patients including complementary or alternative treatments?

About the Treatments

What are your usual treatment recommendations for a new patient with ITP vs. one with refractory ITP?

What tests will you be ordering?

What course of treatment do you suggest and why?

What are the goals of my treatment?

Is there a specific platelet count target you are trying to achieve for me?

At what platelet count should I be worried?

How long will I need this treatment?

How will the treatment be administered?

What are the criteria for discontinuing the treatment?

Is this treatment designed to raise my platelet count temporarily or permanently?



What will you recommend next if the treatment fails?

What are the side effects of the treatment?

For which side effects should I contact you?

Are there any precautions that can be taken to minimize the side effects?

Will I develop other medical problems from this treatment?

How will you monitor the treatment progress?

What changes should I make to my life as a result of ITP or the treatment?

The Agency for Healthcare Quality and Research, a division of the Department of Health and Human Services, has published suggestions to help make the most of your trips to the doctor. See: "Quick Tips - When Talking with Your Doctor." http://www.ahrq.gov/patients-consumers/patient-involvement/ask-your-doctor/index.html

6. CAUSES OF AUTOIMMUNE DISEASES LIKE ITP

What are the possible causes of autoimmune diseases like immune thrombocytopenia (ITP)?

A No one really knows what causes the immune system to mount an attack on platelets or other needed body part. Here are two general theories on the causes of autoimmune diseases. Although these are presented as two theories, they can be viewed as pieces of a larger puzzle.

Molecular Mimicry Theory

This theory suggests some autoimmune diseases may be caused when a person's immune response gets confused between its own cells and invading virus and bacteria if the invaders appear similar immunologically to the host cells. When a virus invades our body, special cells chop it up into thousands of fragments (amino acid sequences) and put some of them in a type of pocket for the immune system to disable. A person's genes help determine which of the invader fragments go in the pocket. T-cells latch on to the fragments in the pocket and send signals to destroy the tissues that have that type of fragment.

The problem comes when some part of the body shares the same amino acid fragment with the surface of the invader fragment. When this happens T-cells attack the 'good' cells with the look-alike fragments as well as



those with the pocketed viral fragment. Another study suggests that the good cells might not need the same amino acids sequence, perhaps just the appearance of another similar property can create the same confusion. This means that a large number of proteins with different amino acid sequences can stimulate the same T-cell, setting off an autoimmune disease.

According to the research scientists, the disease process involves many more steps. The bad luck may unfold over several years and require multiple infections and a genetic predisposition to activate. Here are three helpful references:

"Virus's Similarity to Body's Proteins May Explain Autoimmune Diseases" 12/31/96, New York Times

Richard Aster; "Molecular mimicry and immune thrombocytopenia," *Blood*, 23 April 2009, v. 113, no. 17, p. 3887

Wei Zhang, et al; "Role of molecular mimicry of Hepatitis C virus protein with platelet GPIIIa in Hepatitis C-related immunologic thrombocytopenia" *Blood*, 23 April 2009, Vol. 113, no. 17, pp. 4086-4093 http://www.ncbi.nlm.nih.gov/pubmed/19023115

Microbial Trigger Theory

Scientists have discovered that we have immune cells which, when activated, can target the body's own molecules. Researchers at the National Institute of Allergy and Infectious Diseases, Yale University, and Duke Medical Center, among others, have found these cells can be activated by bacteria, at least in mice.

When it is fighting a reaction, the body produces a compound called interleukin-12 during its normal immune response. Interleukin-12 then creates many other immune compounds specific to a particular microbe. Researchers think this flurry of activity may activate any dormant self-reactive cells that may be near the infection. (If the self-reactive cell is for platelets, you get ITP.)

(Summarized from "Microbial Trigger for Autoimmunity?" *Science News*, 6/21/97)See also: "Role of Environmental Factors," in *The Autoimmune Diseases*, 4th Edition, edited by Noel R. Rose and Ian R. Mackay, 2006, Elsevier Academic Press.



Conventional ITP Treatment

1. NEW ITP TREATMENT GUIDELINES

Q Is there any publically available information about the new International Consensus Report on ITP treatment guidelines?

A The "International Consensus Report on the Investigation and Management of Primary Immune Thrombocytopenia" was published in January 2010 in *Blood*. This report may be viewed at http://www.pdsa.org/treatments/treatment-resources/treatmentguidelines.html

Be sure to visit our PDSA Web site for additional background and information on ITP treatments and coping with the disease. www.pdsa.org

The page that discusses ITP treatments is: http://www.pdsa.org/treatments/conventional.html

2. NEW INFORMATION ABOUT TREATING ITP

Q I have lived with ITP for 10 years now. I had my spleen removed and was fine until last year. The past year I have been battling this condition, with two hospitalizations. What information does PDSA have on new progress with the CURE of this disease? Is there a way to be 'proactive' instead of 'reactive'? As I do not want to go back to a hospital for more treatment, what can I do to prevent issues with ITP?

A In terms of recurring problems, unfortunately, you are not alone. The usual treatments are not curative but some people do find that they provide long-lasting remission. To date, treatments can be thought of as being acute treatments to elevate a depressed platelet count in a bleeding patient and chronic treatments to prevent relapses. For 60 percent the only curative treatment is splenectomy. Many patients who have only infrequent relapses opt to avoid chronic treatments that might be associated with side effects. You can read details in the Treatment section of our Web site, including information on the newest treatment, the TPO agents romiplostim (Nplate®) and eltrombopag (Promacta®). See the drop down menu at the top of www.pdsa.org.



3. ROLE OF PLATELET COUNTS AND SYMPTOMS IN TREATMENT

Q Has the normal range to measure platelets changed recently? The lab where I go to check my platelet count said the range is from 130,000 to 400,000. However, I thought it was 150,000 to 450,000. What is the correct range?

We are not aware of changes in the range of normal platelet count. For most labs, the normal platelet count is 140,000 to 400,000. For most patients a platelet count from 100,000 to 139,000 is inconsequential and may also be normal (remember that given how normal ranges are established, 2.5 percent of all patients will be well and yet have a platelet count below this normal range). However, the new guidance on the definition of ITP limits the definition of ITP to a platelet count below 100,000. Our medical advisors always suggest that the symptoms (bleeding) are more important than the count itself for purposes of management.

4. HELP FOR PATIENT WITH CHRONIC ITP AND A LOW PLATELET COUNT

I have a high school student recently diagnosed with ITP. The doctor she saw said her case "wasn't that bad" and didn't offer any treatment because her platelets count was at 40,000. However, she struggles with fatigue and it is affecting her schoolwork. Can PDSA offer some help for this student?

f A First, let us help put her condition into perspective. The fact that her platelets are at 40,000 is really quite good and the fact that the hematologist didn't suggest any treatments may be a blessing. People who get the usual first-line treatment, prednisone, often find they experience more psychological difficulties than when they are not treated due to the side effects, and their platelets usually drop to baseline after they stop the drug. All the other treatments have difficult pros and cons to balance. Many people choose to live with a 40,000 count if the bleeding symptoms are not too bad. It would be important to look for other remediable causes of ITP in your student as well, as it is unusual she would have disabling fatigue as her chief complaint at that platelet count with no bleeding and on no medication. Possibly the culprit is being overlooked.



Fatigue is a common and not fully understood complaint of many patients with ITP. For most patients, the common treatments for ITP incur more side effects and often fail to correct the fatigue. PDSA has much information to assist, including a booklet on *Coping with ITP* and a booklet on *ITP in Teens*. See http://www.pdsa.org/productsa-publications/free-materials.html

PDSA also has a discussion board that may be helpful including a special section for teens. See http://www.pdsa.org/forum-sp-534/index.html We also suggest your student and/or you register with PDSA and receive our periodic mailings. http://www.pdsa.org/about-us/contact.html

RITUXAN® TREATMENT AFTER SPLENECTOMY AND STEROIDS

I've had ITP for five years. I was on prednisone, had a splenectomy that failed, and am on prednisone again. Because of the side effects I want to get off prednisone so my doctor suggested Rituxan®. I read a little bit about this and am concerned about possible side effects of the treatment. What is PDSA's view on taking Rituxan® for treatment of ITP?

Given the long-term problems with prednisone, getting off prednisone is an important goal for patients and physicians alike. Some people are pleased with their rituximab (Rituxan®) treatments, while others were not helped and a few had serious side effects. As with all treatments for ITP, it is impossible to tell which ones will work or will cause serious side effects in any one person. Many people have contributed their personal experiences with Rituxan® on the PDSA Discussion Group, at www. pdsa.org. Click on 'join the community', then on 'new discussion group'. We offer information about rituximab (Rituxan®) on our Web site at http://www.pdsa.org/treatments/conventional/b-cell-depletion.html.

Rituxan® suppresses the immune system by killing B cells, the cells that make autoantibodies to your platelets, plus potentially other, helpful antibodies as well. You are already immune compromised because you have been on prednisone and have had a splenectomy. This would possibly leave you open to opportunistic infections. On the other hand, successful response to Rituxan® would mitigate this risk by possibly lessening or eliminating the need for prednisone. Rituxan® seems to work better in patients prior to splenectomy than after splenectomy.



We have a list of other treatments on our Web site at http://www.pdsa.org/treatments/conventional.html if you want to discuss other treatment options with your doctor. You could also get a second medical opinion. Doctors vary considerably on how they treat ITP.

6. NEEDS HELP WITH TREATMENT COSTS

My friend's daughter, now in her 20s, has suffered from ITP since she was a baby. While the daughter lives in Nicaragua, her mother has been living in the USA for more than 15 years. My friend works long hours in construction, double shift and weekends, in order to buy medicines for her daughter and sends it to keep her daughter alive. Is there any way PDSA can help her with the medicines or do you know about any organization that can help her? My best friend doesn't speak English well and I see her every day struggling, trying to get money for the medicines.

Possibly your friend's daughter could have familial thrombocytopenia since she's suffered since she was a baby. So she might not have ITP at all. We would need to know more information about her response to past ITP treatments. Although PDSA cannot offer direct assistance programs for help with patient medications, we can tell you that most pharmaceutical companies offer patient assistance programs to help patients receive the medicines they provide.

The patient (or her family) will need to contact the pharmaceutical company (for whatever medicine she receives or would like to receive) and speak with someone there to find out if she/her family are eligible for assistance. PDSA has a free patient insurance and assistance information booklet on our Web site. It offers links to many organizations that may be able to assist with treatment and medication for ITP. Visit our Web site: http://www.pdsa.org/products-a-publications/free-materials.html

If the young woman receives IVIg (immunoglobulin intravenous) she might be able to get assistance from a company such as Baxter Healthcare, which manufactures IVIg. Here is a link to their patient assistance information on the Web site: http://www.baxter.com/patients_and_caregivers/services_programs/index.html.



A comparison of various IVIg products and manufacturers is provided at this link: http://www.phscorporation.com/IVIGComparison.pdf

Also check with other organizations that offer assistance to needy families: http://www.needymeds.org/index.htm

The following group may be able to help with costs for some ITP treatments, including intravenous immunoglobulin (IVIg), anti-D (Win-Rho®), Rituxan®, and prednisone (generic):

http://www.freemedicineprogram.org/available_medicine/w

The two newest treatments for ITP are called TPO agents or platelet stimulator drugs. The two available treatments are romiplostim (Nplate®) and eltrombopag (Promacta®). Information about their patient assistance programs are here:

http://www.nplatehcp.com/nplate/nplate-nexus

http://wwwext.amgen.com/citizenship/safetynet_foundation.html

https://www.gskcta.com/index.html

http://www.rxassist.org/

Have your friend check to see what ITP medications are available through local clinics in Nicaragua. The newest treatments for ITP, romiplostim (Nplate®) and eltrombopag (Promacta®), are often not available outside of the US, Canada, and Europe due to lack of governmental approval and cost. Usually the least expensive choice is prednisone, which can help raise the platelet count in many patients. IVIg is given when the count is very low (usually less than 50,000 platelets). In some cases, splenectomy remains another reasonable option that might be considered if other treatments are ineffective and the patient has bleeding symptoms.

PDSA has Spanish translations of five ITP patient information booklets that we would be happy to send (free) to your friend and her doctor. Here is a link to see the Spanish versions. http://www.pdsa.org/products-a-publications/free-materials/translated-publications.html



7. EXPERIENCE WITH IVIG FOR CHILD WITH ITP

Thank you PDSA for the tremendous response and support that you gave to our family when our child had her bad experience with IVIg. We were going to take her to the hospital yesterday, but she fell asleep, so we decided to let her rest. That evening she woke up with another bad headache so we gave her medication, and she fell asleep again and ended up sleeping all night. We were prepared and expecting to take her to the hospital today.

A most welcome sight was our child walking toward us this morning looking much better. She is definitely on the upswing. Our question remains: should we stick with IVIg, after such bad side effects for her? We are nervous to try it again. We are grateful to be part of your wonderful support group with such caring people.

We know ITP patients who have had IVIg many times and had several severe reactions, with horrible headaches and flu-like symptoms that lasted several days. There are a number of reasons this can occur including the IVIg being infused too quickly or the patient not being pre-medicated before the infusion. Sometimes something called "serum sickness" can occur. Other times the problem is unavoidable despite optimal medical care. When you are wondering whether to seek medical care for your child's low platelet counts, it is best to seek the advice of your child's doctor before making a final decision.

PDSA has learned from IVIg manufacturers that all IVIg product formulations are not the same — some have sugar, some have salt added in. A patient can have a reaction to one IVIg product and still be fine with another. It was recommended that you write down the manufacturer name and even ask the nurse for the lot number, which is on the bottle. If you decide to try IVIg again for your child, ask your doctor if there is a different product she could try.

You have to be your own, or your child's best advocate. Try to get to know the nurse(s) who gives the IVIg. She/he can explain everything being done during the infusion. Be sure to ask about pre-medicating your child before the IVIg. The doctor needs to include the instructions in your child's chart ahead of time. Be sure to seek the input of your physician before making any decisions. PDSA has information about IVIg on its



Web site at: http://www.pdsa.org/treatments/conventional/immunoglobulins.html

For most patients for whom IVIg presents complications such as this, other treatment options exist and should be discussed with the physician.

8. INFORMATION ABOUT H. PYLORI AND ITP

Q Do you have any information pertaining to ITP and *Helicobacter pylori (H. pylori)* bacteria?

A Yes we do. There is a short discussion about *H. pylori* on our Web site at: http://www.pdsa.org/treatments/conventional/antibiotics.html

The following two articles on *H. pylori* are helpful and informative. Please contact PDSA to order a copy of these:

- "Eradication of *H. pylori* increases platelet count in patients with ITP," *Eur J Clin Invest*. Volume 35, Issue 3, p. 214–219.
- "Platelet count response to *H. pylori* treatment in patients with ITP..." *Haematologica*. 2009 June; 94 (6):850-6.

9. COPING WITH ITP AND OTHER AUTOIMMUNE DISEASES

Q I have several autoimmune disorders including diabetes, ITP, lupus and rheumatoid arthritis. My ITP is under control with Plaquenil® (hydroxychloroquine sulfate USP, an antimalarial drug). It raised my platelet count and has kept the count up for the last few years. I haven't come across anyone with the same conditions. Are there other ITP patients on Plaquenil® as well?

A This is a classic case of the way autoimmune diseases sometimes multiply. Because you have several diseases and your ITP may be a result of one or more of them, you are considered to have secondary ITP. This is sometimes treated differently than primary ITP where no other confounding diseases are present. Often with secondary ITP, treating the other diseases helps the low platelets. That's probably why you are taking and have received some benefit from Plaquenil®. A considerable number of patients with lupus have their platelet



count rise when Plaquenil® or other therapies are started for the lupus.

The best way to find out if anyone else in our group is taking Plaquenil® or has had a response is by posting a message to our Discussion Group at http://www.pdsa.org/forum-sp-534/index.html. If you are not registered for that, click on 'register' at the top right and complete the information.

10. TREATMENT OPTIONS FOR PATIENT WHO CANNOT RECEIVE BLOOD PRODUCTS

Q I have ITP, with a really low count at the moment. I have tried steroids but it hasn't worked and I can't have any operations because I will bleed to death. I am a Jehovah's Witness and refuse to have blood transfusions. Is there is any other form of treatment that you know of that doesn't involve use of blood? Do you know any doctors in the UK that could help with my condition?

A There are treatments for ITP that don't involve blood products. IVIg and anti-D are out, but there are other treatment options including rituximab (Rituxan®), romiplostim (Nplate®), or eltrombopag (Promacta®), among many others, that might help and they are not derived from blood. Sometimes these treatments can be given for a brief period of time to elevate the platelet count to allow a safer splenectomy. See the Treatments section of the PDSA Web site at http://www.pdsa.org/treatments.html.

There are some top-notch ITP doctors in the United Kingdom (UK) and the available treatments are pretty much the same as in the US. You may want to contact the ITP Support Association in the UK: www.itpsupport. org.uk. They may be able to provide a list of ITP doctors who are close to you and also introduce you to other patients with ITP who live nearby.



Splenectomy

CONCERNS ABOUT GETTING A SPLENECTOMY FOR ITP

Q I have ITP and have a low platelet count. IVIg and steroids are not keeping my platelets up. Now my doctor wants to remove my spleen. I have many questions about this. Should I get the splenectomy? What is the success rate of this? How can I avoid having a splenectomy? Would it cure my ITP? What will be the long-term effects of removing my spleen?

f A The long-term success rate for splenectomy is about 60-70% but splenectomies are less successful in people over age 60. PDSA can send you the statistics on age and splenectomy success. Some noted ITP doctors don't do splenectomies in people over 65 unless it is an emergency because they are not as effective and there is a greater chance of complications from the surgery. While a splenectomy is not a cure for ITP (it just eliminates the site of some platelet destruction, yet platelets can also be destroyed in the liver) it is a worthwhile approach in about two-thirds of patients who will subsequently have a normal platelet count, and many others will have a high enough count that they do not need additional treatments. When considering a splenectomy to treat ITP it is very important to discuss the pros and cons of the procedure with your doctor.

Having a splenectomy makes most adults unable to handle three types of bacterial infections: fortunately vaccines are available to protect against these bacteria and should be taken prior to the splenectomy operation. Doctors frequently vaccinate those about to have a splenectomy with polyvalent pneumococcal, meningococcal C conjugate, and H influenzae b (Hib) vaccines. Younger patients may be asked to remain on small daily doses of prophylactic antibiotics. Although rare, severe infections can occur and most patients without their spleens are instructed to rapidly seek medical attention for a temperature over 101°F and initiate a course of antibiotics. Please talk to your doctor about what to do if you get a fever. PDSA has a list of ITP treatments on the Web site that provide information about other options for treating ITP.



2. SPLENECTOMY IN AN OLDER ADULT

Q Is there anything you could advise me to do concerning my father who has been diagnosed with ITP with his counts down to 9,000? He has received his second intravenous (IV) treatment with Rituxan® and he has also received platelets. His situation all started two days after my mother passed away after a struggle with cancer.

The doctors first blamed the ITP on the Plavix® he was taking, so they discontinued it and started him on prednisone. At first he responded to the prednisone but then his counts started to decline. It has been a long month without much progress. Do you have any suggestions?

Although the cause of ITP is unknown, we've heard from some others whose platelets dropped after an emotional event. PDSA has information about the various treatments for ITP on our Web site www.pdsa.org. Click on the Treatment link on the drop-down menu. These are applied in various orders by hematologists. Since your father is considered to have an 'acute' thrombocytopenia (which may resolve spontaneously with a few more months of medical therapy), splenectomy is rarely indicated this early in the disorder. Also some doctors do not do splenectomies in patients 65 and older because of the higher risk for post-surgical complications.

Also be wary of raising your father's platelet count too much since that could make him more prone to a blood clotting problem. A rapid rise in platelet count with any treatment is paradoxically associated with a slight increase in the risk of cardiovascular problems in a small percentage of people, but more so in those with pre-existing problems like your father has. There are pros and cons to all the treatments for ITP and getting a second opinion is probably worthwhile. For additional information see: "Vascular complications after splenectomy for hematologic disorders," Shelley E. Crary and George R. Buchanan, *Blood*, 2009, 114: 2861-2868. This is available through PDSA. Call or send us an email request.



3. INDIUM SCREENING TEST PRIOR TO SPLENECTOMY

Q I am wondering if you have any feedback from people who have gotten the Indium Screening Test in London. My daughter is over there for part of the summer and she may need a splenectomy soon. I was wondering is the test worth it?

A Indium scanning is a method of labeling a patient's own platelets with a radioactive substance (use of low-level radioactive tracers is common in today's practice of medicine) and reinjecting them back into the patient. Scanning is then done over the liver and spleen to see where the platelets are removed. In a few studies, those with mostly a splenic pattern of platelet destruction had a higher rate of successful splenectomies. Unfortunately, prospective studies to evaluate the effectiveness of this have not been undertaken. The test is not standardized, and is only available in a few centers in the world but not in the U.S.

We've heard from one person who took the Indium Screening Test some years ago. She was very pleased that she did the test. Our founder had a failed splenectomy and we know of others who would really like to have their spleens back. While life without a spleen is not too difficult there remains awareness that you're missing a part of your body. People under the age of 60 seem to have more success with the splenectomy operation than older folks. We understand that this is not an easy decision. PDSA has additional information about splenectomy at: http://www.pdsa.org/treatments/conventional/splenectomy.html

4. PREGNANCY AFTER A SPLENECTOMY

Q I was diagnosed with ITP over two years ago and underwent a splenectomy, which cured the ITP. I have not had any problems since. Now, I am thinking about getting pregnant; however, I wondered could my prior ITP have any effect? Could my ITP reoccur because of pregnancy or is there any higher risk of that occurring?

A In many cases a splenectomy has provided for a safe platelet count and reduction in a need for other treatments. The term 'cure,' when used with those



whose platelets improve after a splenectomy, is a bit misleading as in many cases you probably still have antibody-coated platelets that continue to circulate in your blood since you don't have a spleen to remove them. Some women do have reactivation of their ITP during pregnancy possibly with increased destruction of platelets by the intact liver.

Fortunately, most babies of ITP mothers are born with normal platelet counts despite the possible transfer of the antibody across the placenta. In one large study, children of mothers with ITP were no more likely to have a low platelet count than children of mothers with no ITP. Many women with ITP have fine, healthy families. PDSA has a very good booklet on *ITP and the Female Lifecycle*. You can find it and other informative materials at http://www.pdsa.org/products-a-publications/free-materials.html.



Vaccines

1. CHICKENPOX VACCINE AND CHILDHOOD ITP

My daughter has recovered from ITP disorder after receiving Rituxan®. It has been four years of recovery. Side effects of her past steroid treatments destroyed one eye and her mental growth. I am reluctant to give her any further vaccination as I believe the chicken pox vaccination caused the ITP. All her vaccinations were held since the chicken pox vaccination. Is there any research about vaccination after recovery from ITP?

A There are some cases where ITP has been preceded by an immunization, such as for chicken pox. If your child had a bad reaction with the one vaccine, it is possible she may also have reactions to other vaccines. No one can say for sure. According to our pediatric medical advisor, overall the rate of significant immune thrombocytopenia after MMR vaccine is very low, just slightly above the rate of childhood ITP in the general population. He routinely continues with vaccination if the child has ITP that is clinically stable. If the situation arises where the vaccinations have been postponed because of acute ITP, then he routinely does "catchup" after the ITP is resolved. He has not experienced a "relapse of ITP" in hundreds of children.

Be sure to discuss these concerns with your child's hematologist or other caregiver before she receives other vaccines. The U.S. Food and Drug Administration (FDA) Web site provides information about the chicken pox vaccine (varicella): http://www.fda.gov/BiologicsBloodVaccines/Vaccines/QuestionsaboutVaccines/ucm070425.htm

2. HEPATITIS B VACCINE EFFECT ON PLATELET COUNTS

Q I've found many foods including sugar, chocolate, soy, preservatives & others affect my platelets and cause the count to drop. I am a pharmacist training to be an immunizer and need to get the Hepatitis B vaccine myself. Can this vaccine affect my platelet count?

A PDSA doesn't have a direct answer about this on our Web site (PDSA) because there isn't a one-size-fits-all answer. Here is some information from the Internet that pertains to this topic.

 Scientific article about infant developing low platelets after Hepatitis B vaccine:

"Severe thrombocytopenia after hepatitis B vaccine in an infant from Turkey", *Vaccine*, Volume 26, Issue 51, 2 December 2008, Pages 6495-6496, Aziz Polat, Halise Akca, Erol Dagdeviren

To find this article go to *http://www.sciencedirect.com/science* and search on the terms "infant low platelets Hepatitis B".

• Hepatitis Foundation Web site with information on Hepatitis B vaccine:

http://www.hepb.org/patients/prevention_and_vaccination.htm

 Other information about the Hepatitis B vaccine from the Immunization Action Coalition:

http://www.vaccineinformation.org/hepb/gandavax.asp

 Note in the information below from the Vaccine Information Coalition that people who are hypersensitive to yeast should not receive the vaccine. You mention certain foods that affect your platelets and you should determine if you are sensitive to yeast.

"Who should NOT receive hepatitis B vaccine?

People who had a serious allergic reaction to one dose of hepatitis B vaccine should not have another dose of hepatitis B vaccine. People with a history of hypersensitivity to yeast should not receive this vaccine. People with a moderate or severe acute illness should postpone receiving the vaccine until their condition is improved."



Source: http://www.vaccineinformation.org/hepb/qandavax.asp

The most important guideline on getting vaccines of any kind is whether or not you have ever had a serious reaction to a previous vaccine. It is quite possible that you could have a reaction to another vaccine, though not necessarily, as vaccine contents do vary. This is best discussed with your own healthcare giver so you understand if you have any known risk factors. The Hepatitis B vaccine has been given to thousands of people and most do not have a serious reaction.

3. VACCINES FOR PATIENTS WITH ITP

Q I have ITP and wonder whether I should get vaccines, such as the annual flu vaccine?

A Vaccines are a difficult decision for people with ITP. When we ask the medical advisors they usually recommend vaccines. However, here at PDSA we've heard from some people who had received various vaccines and reported that their platelets have dropped and they have gone out of remission.

PDSA's suggestion is to weigh the risks of the disease (in this case, some chance of getting the flu and dropping the platelet count because of the flu) and the possible risk of problems that might result from the vaccine. To help in your decision, you should discuss your concerns with your hematologist. You may find additional information about vaccines at the National Vaccine Information Center, at their Web site www.nvic.org and from the US Food and Drug Administration (FDA) vaccine information Web page at http://www.fda.gov/BiologicsBloodVaccines/default.htm.

Coping/Living with ITP

1. SUPPORT FROM OTHERS WITH ITP

Q As a patient recently diagnosed with ITP, I would like to talk with someone who has lived through this experience. What can I expect?

A PDSA offers several ways for you to connect to other people coping with ITP. These include our Name Exchange program for members, national and regional meetings, local support groups, and our Discussion Group at http://www.pdsa.org/forum-sp-534/index.html. For more information on these contact the PDSA office toll-free at 877-528-3538 or visit our Web site www.pdsa.org.

2. AIR TRAVEL WITH LOW PLATELETS

Q Is there any advice you could give me about ITP and flying. I have a young child with chronic ITP. We are moving from the UK to Florida this year. Is there anything that could help us before flying in regard to raising her platelets if they are very low? Should we wait until her platelets are high enough for her to fly?

A We asked our medical advisors about air travel. Most of them thought it was fine to travel at low numbers. You may also ask what things you can do to make the travel safer, such as avoiding an aisle seat where the child risks being bumped.

3. SAFE PLATELET COUNT FOR EPIDURAL ANESTHESIA

Q How does having low platelet counts (around 75,000) in pregnancy affect one's choice of pain management during labor and delivery? (Note: The patient has low platelets due to a storage disease.)

A We know of ITP experts who recommend a platelet count of at least 75,000 for a spinal or epidural anesthesia, and a platelet count of at least 50,000 going into labor to be able to perform a caesarean section, if needed. These general guidelines were developed for patients with ITP and may be different for a patient with a storage pool problem. Dr. Andra James at Duke University is an Obstetrics and Gynecology doctor who



specializes in bleeding disorders. She may be able to help with specifics, if needed.

4. SAFE PLATELET COUNT FOR ORTHODONTIC WORK

Q I am an orthodontist in Jakarta, Indonesia. My patient has ITP with a thrombocyte (platelet) count around 60,000. Is it safe for her to undergo an orthodontic treatment with possibility of extractions? What are the contraindications for her during the orthodontic treatment?

According to our medical advisors, with a stable platelet count of 60,000, orthodontic procedures can be done without additional hemostatic support. Uncomplicated extractions can also be performed without additional agents. However, some doctors would prescribe epsilonaminocaproic acid (a drug used to control bleeding), every 4-6 hours starting the morning of the extractions and for 2-3 days afterward. Careful vigilance after the procedure is recommended.

5. EXERCISE AND ITP

Q Has there been any research to prove that regular exercise increases the platelet count?

A We don't know of any specific research on the subject, but we do know of four good reasons for patients to exercise:

- 1. We have heard from some ITP patients who found their count is higher after they exercise;
- 2. Exercise helps promote overall good health and has been shown to improve depression;
- 3. Increased blood flow may increase the platelet release from the megakaryocytes. While it is not clear that increased blood flow from exercise will do this, intuitively, we believe it is possible; and
- 4. At the 2010 PDSA ITP conference Dr. Howard Liebman mentioned that exercise releases more platelets from the spleen and can increase the platelet count that way.

Note: Please talk to your doctor if you are considering implementing or increasing your exercise program. The doctor's answer will need to balance the nature of the exercise and the severity of the patient's thrombocytopenia.

6. QUESTION ABOUT ITP PATIENT DONATING BLOOD

Q My ITP has been in remission for four years. Is it okay to donate blood to the Red Cross?

A We don't suggest donating blood since you may still have some residual antibodies to your platelets. ITP can recur for some people. The famous Harrington study in the 1950s (where researchers injected themselves with blood from ITP patients with active disease and the researchers' platelets temporarily dropped to a dangerous level) was a good example to researchers and a warning about transferring the blood of people who have ITP. We hope you stay in remission and find some other good ways to help others.

7. SAFETY OF PAINKILLERS OXYCODONE AND NOVOCAINE FOR ITP PATIENTS

We've received questions about the safety of certain pain medications for ITP patients. One patient asked whether taking oxycodone for pain (for a fractured arm that will be in a sling 4 weeks) will have a negative effect of any sort on her platelet count or function. Her recent count was 65,000. A second patient asked if receiving novocaine (or similar) anesthetic for dental work is safe for ITP patients?

We checked with our medical advisors and were informed that neither oxycodone nor novocaine should have any significant effect on the patient's platelet number or function. However, if the oxycodone is administered with aspirin in the form of Percodan® then it could. Likewise, any injection (like novocaine) in a patient with low platelets (especially into the oral cavity) could be risky if their platelets are below 30,000. The doctors would not be concerned about phlebotomy (giving blood for laboratory tests) or subcutaneous injections for vaccination. They might have to apply pressure a little longer than usual. To learn about effects of other drugs on platelets, visit our Warnings page at http://www.pdsa.org/about-itp/warnings.html.



8. EFFECTS ON INR OF SUBSTANCES THAT INTERFERE WITH PLATELET FUNCTION

With my low platelets (around 30,000) my bleeding time or likelihood of bleeding increases if I take ibuprofen or other anti-inflammatories. Thus, I stopped all anti-inflammatories several years ago. Are there other substances that would reduce my platelet function and increase my INR/PT (international normalized ratio/ prothrombin time) such as Tylenol® (acetaminophen), antihistamines, antacids, high Vitamin E dosage or other supplements?

Although the bleeding time is not an accurate predictor of platelet function, any of the substances that interfere with platelet function can increase your risk of bleeding. The INR/PT are affected by warfarin (Coumadin®), heparin, etc. not by anti-platelet agents. The INR/PT does not measure platelet function or predict bleeding in patients with low platelet counts. It measures the ability of the liquid (plasma) part of the blood to clot. Problems with the liver, administration of the drug warfarin (Coumadin®) and vitamin K deficiency can all increase the INR/PT and increase the risk for bleeding.

PDSA has on its Web site a list of various drugs, vitamins, supplements, and foods that affect platelet action. Visit: http://www.pdsa.org/about-itp/warnings.html or contact the PDSA office at 877-528-3538 (toll free) to request a copy.

9. ACQUIRING ITP BY BLOOD TRANSMISSION

Q Can a person acquire ITP by sexual contact, including kissing? If a person has sexual contact with an ITP person with ITP antibodies in their blood would that expose the person to those antibodies and a risk of getting ITP?

According to our medical advisors, the answer is "Absolutely not. Unless related to HIV, there is no transmissibility." Although ITP can be related to Hepatitis C infection, there is very little evidence for sexual transmission of Hepatitis C. In the well-known Harrington experiment volunteers developed immune thrombocytopenia (ITP) but the ITP "transfer" was by giving a great deal of antibody in the liquid part of the blood (large amounts of plasma) — like a full blood

transfusion. It was not true transmission of ITP in that the recipients never really had ITP, they just had enough of the donor's antibody to temporarily mimic it. There is no risk of transmission of ITP since, by definition, it is not an infectious disease and there is no evidence they are aware of, even anecdotally, of anyone ever catching it from anyone else.

Therefore, it must be made clear that ITP per se is not communicable but that there are clinical situations which may appear to be. For instance, there are viral-induced causes of low platelets (not really ITP), such as infectious mononucleosis, which is a communicable disease; however, this is not usually ITP, but can be classified as an immune-mediated thrombocytopenia. The confounding term here is "transfer." The virus that caused the thrombocytopenia is transferable, while the antibody that causes ITP is not.



Pets with ITP

1. TREATMENT OPTIONS FOR PETS WITH ITP

Q I am requesting guidance on treatment for a 5-year-old dog with ITP. She is about 15 lbs and has had ITP for about one year. She has been treated with steroids and other immune-suppressing drugs. To keep her platelets up, she has been given larger and larger doses. My dog is still sick and has petechiae on the legs, but no nosebleeds. She is very lethargic and has no energy, with her legs very weak.

The veterinarian has suggested a splenectomy. Is this the only option? Does PDSA have any other suggestions? My dog hasn't been given IVIg because it costs about \$850 for a single dose and isn't expected to keep her platelets up. Can pets be given the new platelet stimulator drugs? Have they been used successfully in any animals? Would the price be as high as or higher than the IVIg? Could you recommend any veterinarians who specialize in ITP in animals?

We sent your questions to our medical advisors who are ITP specialists. They reported that dogs with ITP have been treated with steroids, azathioprine (Imuran®), vincristine, and splenectomy (reluctantly) at the Veterinary School at the University of Pennsylvania (PENN). That Veterinary school has a hematologist, Dr. Urs Giger and maybe others. http://www.vet.upenn.edu/people/faculty-clinician-search/URSGIGER

There are other veterinary schools in/near most state universities.

As to the use of TPO-mimetics (which include Nplate® and Promacta®, approved by the FDA in 2008 for treatment of chronic ITP in adults age 18 and older) or whether that's even possible in pets, the doctors said probably any chronic treatment in a pet with ITP would be expensive/problematic to administer. Furthermore, eltrombopag (Promacta®) doesn't work in dogs and romiplostim (Nplate®) has been given to dogs but works only briefly — the dogs soon develop antibody against the romiplostim (since it was designed only for humans) and neutralizes its effect. For further information on low platelets in dogs, visit this Web site: http://www.ehow.com/how_5645441_raise-low-platelet-count-dogs.html

Complementary and Alternative Treatments

Some ITP patients look to complementary and alternative medicine (CAM) treatments that may help the body repair and deal with the underlying conditions that precipitated the disease. The questions in this section reflect some of the questions we receive on these topics. This section has been reviewed by Naturopathic Doctor, Veronica Hayduk, ND.

1. INFORMATION ABOUT AYURVEDIC COUNSELING

Q I am an ITP patient interested in consulting an Ayurvedic practitioner. I live in NY and am willing to travel. What is Ayurvedic medicine? Can PDSA recommend an Ayurvedic doctor I could see?

Ayurvedic medicine is the oldest comprehensive system of medicine and served as the basis for many that followed. Like Chinese medicine, it combines natural therapies with a highly personalized, holistic approach to the treatment of disease. It treats the whole person, addressing body, mind, and spirit. For locating an Ayurvedic doctor see the links on the right side-bar of http://www.pdsa.org/treatments/complementary.html

2. LOCATING AN ALTERNATIVE MEDICINE DOCTOR

Q Does PDSA maintain a list of alternative medicine doctors who are recommended for help in treating ITP? Any resource would be helpful.

We don't know of any specific alternative medicine doctors or herbalists to recommend who have treated ITP patients. For resources, the National Association of Naturopathic Physicians is at: http://www.naturopathic.org/. Only qualified naturopathic doctors (NDs) are listed. Local health food stores often have message boards of other practitioners in the area. Healthprofs.com is a helpful index of all sorts of practitioners and is available nationally. See their site at: http://healthprofs.com/cam You may also want to contact the leaders of your nearest local ITP support group. Support group information is at: http://www.pdsa.org/join-the-community/local-groups.html. Perhaps they know of



someone who has had experience with an alternative medicine practitioner in your area.

3. FREE RADICAL DAMAGE THEORY OF AUTOIMMUNE DISEASE

Q Could you please explain the Free Radical Damage theory of how someone might develop an autoimmune disease such as ITP?

A In this theory, the DNA in our cells can be altered or destroyed by reactive substances in our bodies. When the destroyed DNA is a part of the immune control function, it can result in a specific autoimmune disease. Free radicals are particles with an unstable molecular structure that act as scavengers in the body and rob electrons from other molecules to increase their stability. The particles that are robbed don't function as they should and can be toxic. Free radicals build over time since they are a natural byproduct of our metabolism and a general component of aging. Their production is hastened by stress, pollution, fertilizers, pesticides, prescription drugs, alcohol, electromagnetic radiation, etc.

Our bodies have built-in controls for free radicals and ways of changing them into neutral substances. These detoxification mechanisms require specific enzymes to make them function well. If our bodies do not have the vitamins and minerals to make up the enzymes, or if the detoxification mechanism is damaged, perhaps by free radicals, the result is a surplus of free radicals and other toxic substances. This can also happen if our lifestyle and environment create more toxins than even a good working system can neutralize. Poor food choices such as sugar and processed foods and lack of antioxidant-rich foods that can counter free radicals also contribute to the problem.

The excess free radicals and other noxious byproducts of a failed detox process roam our bodies and attack our weakest links. These weak links may be due to genetics. They may be other parts of our immune system that happen to be nearby. Depending on the DNA attacked, the electron grabbing can cause an autoimmune disease.

(Summarized from Sharma, Hari, M.D. Freedom from Disease, Toronto, Ontario: Veda Publishing, 1993, Rogers, Sherry A, M.D., Tired or Toxic? A Blueprint for Health. Syracuse, NY: Prestige Publishing, 1990, and a conversation with a research scientist at Rutgers University.)

Diets and Food Supplements

This section has been reviewed by Naturopathic Doctor, Veronica Hayduk, ND.

1. EFFECTS OF DIET AND ALLERGIES ON ITP

Q My friend's husband has ITP and is on prednisone. His platelet count goes up and down. I think diet has a lot to do with it. Can you tell me if diet or even allergies are important with ITP? Also, please give your expert opinion about fruits and vegetables that could be helpful in raising platelets.

A We've heard from some people who feel that diet and allergies play a part in managing ITP. Unfortunately, there has not been very much scientific research on the subject. PDSA did a survey in 2002 that looked at this topic. You can see the survey results at: http://www.pdsa.org/about-itp/surveys.html

It is becoming increasingly clear that ITP is an inflammatory condition, but it is unclear whether any diet or dietary supplement can alter this. PDSA has diet and lifestyle suggestions at the bottom of this page: http://www.pdsa.org/products-a-publications/free-materials.html

We think the best vegetable for improving nutrition and health is kale. Ounce for ounce, this green, leafy vegetable has the most nutrients of any vegetable and has the highest level of Vitamin K. For additional kale information, visit the site: http://www.whfoods.com/genpage.php?pfriendly=1&tname=foodspice&dbid=38

Some fruits and vegetables can interfere with how platelets behave. PDSA has a warnings list at http://www.pdsa.org/about-itp/warnings.html While these foods and other substances don't lower the platelet count and a small amount probably won't cause a problem, it is good to know about them. You may also be interested in reading PDSA Founder Joan Young's ITP story in her book https://www.pdsa.org/products-a-publications/the-platelet-store.html. She believes that changing her diet and eliminating allergic triggers helped improve her ITP.



2. SUPPLEMENTS TO INCREASE PLATELET COUNT

Q Can anyone tell me of any supplements that my 14-year-old with ITP can take to help his platelet count to go up? What about taking fish oil supplement? Is this okay for an ITP patient? What about taking plant oils, such as Evening Primrose Oil, Black Currant Oil, or Borage Oil as a supplement? Are there studies about this?

A We're heard from many people who feel that diet, supplements, or herbs have made a positive difference in their lives and their platelets. However, we are not in a position to suggest any particular treatment. You can read about some of the things that have helped others at http://www.pdsa.org/treatments/complementary.html

Many substances can affect the platelet count and platelet function. For instance, those with a platelet count less than 60,000 need to be careful about taking fish oil supplement. This supplement may reduce the clotting ability (coagulability) of platelets. We have details on the Warnings list on our Web site: http://www.pdsa.org/about-itp/warnings.html

In general, if your platelets are above 30,000 or if you don't have bleeding symptoms, it is not as important to avoid these substances. The Office of Dietary Supplements of the NIH has information on supplements that may be helpful (http://ods.od.nih.gov/HealthInformation/). It is important for you to tell your hematologist about all of the things you are taking or considering to take.

Some people also visit a naturopath to help improve their general health and possibly the platelet count along with it. For guidance on supplements, our suggestion would be to take your son to a knowledgeable naturopath physician who can look at his specific condition and recommend a nutrition treatment plan.

Two additional studies of supplements might be of interest. One is on Vitamin C, found on our PDSA Web site at: http://www.pdsa.org/treatments/complementary.html

The other study is on folic acid, presented at the 2003 ASH Meeting: Elizabeth Schulz, et al., "Successful Treatment of Chronic Refractory Idiopathic Thrombocytopenic Purpura with High Dose Folic Acid. Phase II Trial. Preliminary Results. Session Type: Poster Session 183-I. Contact PDSA to request a copy.

3. MACROBIOTIC DIET TO HELP ITP

I've read in your literature about some patients getting better with a macrobiotic diet. What exactly is that diet and how can it help ITP? Are there studies about this? How would I get started if I wanted to try macrobiotics to help my platelets? How do I locate a macrobiotic counselor?

A Macrobiotics in its simplest form is a diet aimed at restoring and maintaining health by considering the energetic qualities of food. In its more complex form, it is a way of life that considers what we eat, see, wear, where we live, and how we communicate. The macrobiotic diet could be beneficial to those who have ITP because it recommends the elimination of many foods that can cause allergic reactions. Following the macrobiotic diet reduces the allergic load on the body and reduces strain on the immune system.

A macrobiotic diet is essentially a non-dairy, vegetarian, high fiber, low fat, whole-foods diet with some added fish. A macrobiotic diet is similar to a Mediterranean or Paleolithic diet, though not identical. In coping with any disease, a healthy diet is important. Some published evidence shows that a whole, natural foods, mostly vegetable-based, diet is a healthy choice. No studies have demonstrated specific benefits for ITP patients. Also some doctors feel that dairy foods aggravate autoimmune diseases.

When deciding to change your diet it is always best to start the changes slowly so your body has time to adjust. PDSA has diet and lifestyle suggestions we can send to you or you can read them on our Web site at http://www.pdsa.org/products-a-publications/free-materials.html

These diet and lifestyle suggestions deal with improving your general health and some people have found they help raise the platelet count. You can read Joan Young's story at http://www.pdsa.org/join-the-community/personal-stories/item/129-success-story.html

Some very good cookbooks can help, including any that are by Annemarie Colbin, Christina Pirello, or Meredith McCarty. To locate a macrobiotic counselor look at the right side-bar of the page http://www.pdsa.org/treatments/complementary/food-as-a-cure.html for a start. You can also search on 'city macrobiotics' where city is some place you choose. Some of the macrobiotic counselors also do phone consultations. Consider going to the Kushi Institute conference as well.





Depending on your circumstances, one of our other booklets may also be helpful:

ITP in Adults — Frequently Asked Questions

ITP in Teens — Frequently Asked Questions

Understanding ITP: A Story for Kids about Immune Thrombocytopenia

When A Child Has ITP: A Resource Guide for Parents

ITP in Children — Frequently Asked Questions

The Role and Function of Platelets in ITP: Frequently Asked Questions

ITP and the Female Lifecycle: Bleeding Issues in the Stages of a Woman's Life

Coping with ITP

Cómo Sobrellevar la PTI: Preguntas Frecuentes

PTI en la adultez — preguntas frecuentes

PTI en Adolescents: preguntas frecuentes

PTI infantil — preguntas frecuentes

La PTI y el ciclo de vida femenico:

Problemas Hemorrágicos en las distintas etapas de la vida de una mujer

Health Insurance and Assistance Programs for ITP Patients

PTI chez l'adulte: Questions Fréquemment Posées PTI chez l'enfant: Questions Fréquemment Posées Vivre avec le PTI: Questions Fréquemment Posées

Parents Resource Packet

For more information about ITP, additional copies of this booklet, to donate, or to become a member of PDSA, please contact us:

Platelet Disorder Support Association 8751 Brecksville Road, Suite 150 Cleveland, OH 44141

tel 1-87-PLATELET (1-877-528-3538) fax 844-270-1277

pdsa@pdsa.org www.pdsa.org





The Platelet Disorder Support Association is dedicated to enhancing the lives of people with immune thrombocytopenia (ITP) and other platelet disorders through education, advocacy, research, and support.

Membership benefits include a quarterly newsletter, discounts to the ITP Annual Conference, optional participation in the Name Exchange Program, and the good feeling of helping others.

PDSA is a 501(c)3 organization. All contributions are tax deductible. PDSA is eligible for corporate matching programs.

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The information in this guide is for educational purposes only. For your unique medical condition, please seek the care of a qualified medical doctor and/or other health care provider.





for People with ITP

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