Learn the basics of Hernias and Hernia surgery so you can understand the controversies involved and make the best Choices for yourself. Much of the content here is critical of the Standard of Care. Please read the Standard of Care to see what this should mean to you.

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**The Standard of Care**

You might think, great, the standard of care, that is what I want. This kind of concept makes life's choices easy and guarantees the best possible outcome for everybody. But it does not for everybody.

The Standard of Care is a phrase used by someone who wants to close the debate. They justify it by saying that it is the greatest good for the majority. That may be true. But what about the minority? And who is making this calculation anyways? The authorities? Who are they? Probably respectable people. What are their motives and are their motives influenced by conflicts of interest?

The Standard of Care in Hernia Surgery is mesh. The problem with this standard is that it is heavily influenced by the mesh manufacturing industry. How strong is this influence? Enough! The American Hernia Society could not exist without funding from the mesh manufacturing industry. Are they influenced by industry? Of course.

Merriam Webster has 10 definitions for the word Standard: This one I think applies best to Mesh is the Standard of Care: Something established by authority, custom, or general consent as a model or example. It does not account for the individual. Who is looking out for you? Really only you.

My advice: The standard of care is not the wrong choice for most patients. If you want to feel like you have conducted due diligence and are willing to do the work read more on this web site.

-- Dr. Kevin C. Petersen

[CONSULTATION]

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Hernia Repair
Indirect Inguinal Hernia // Direct Inguinal Hernia // Femoral Hernia // Umbilical Hernia //
Epigastric Hernia // Incisional Hernia
Hernia Repair is very frequently the first operation that a surgeon is taught to do. This is not because it is easy to do. It is partly because it is the most common surgery done world wide. The surgeon in training first learns to cut, sew and tie. Later comes mastery. Hernia repair is nuanced.

If you have a hernia and you are doing your due diligence you will very quickly see that there is controversy and patients are being seriously injured. You will need to come to terms with the controversy in your own way. The issues that you need to sort out include (in order of importance by my judgment):

1) Risk of chronic pain;
2) Long term comfort;
3) Risk of hernia recurrence;
4) Ease of treatment of complications;
5) Speed of recovery;
6) Cosmetic appearance of wound.

You have to decide for yourself what is important, but there is one point that I would like to stress:

Chronic pain is the most important complication of hernia surgery -- not hernia recurrence.

These six considerations can be distilled down to two choices.

1) Mesh or no mesh?
2) Conventional open surgery, or high-tech minimally invasive [ mesh ] surgery?

Take question number 2 first. Minimally invasive surgery has a small entrance wound (like a bullet) and therefore has the best cosmetic results and has a lower risk of wound complications. But wound complications are not a common problem of conventional surgery. Aside from the small entrance wound the amount of trauma inside the abdomen is the same for minimally invasive as it is for conventional. In fact I have seen many patients who had worse post op pain than my conventional surgery. Lastly, if you choose minimally invasive surgery, then you choose mesh. It may be possible but nobody is doing minimally invasive without mesh.

The most important choice you will make, in my professional opinion, is mesh or no mesh. You will not find a consensus on the risk of chronic pain in the medical literature. Reports of the risk of chronic pain caused by hernia mesh range from 0% to 60%. I quote to patients a 20% risk of chronic pain caused by hernia mesh. There are authors who say that the risk for chronic pain is the same with or without mesh. I quote to patients a risk of less than 1% for chronic pain caused by non mesh hernia repair based on my own experience.

Chronic pain is a very serious complication of hernia surgery. It can and has ruined lives

If you have a hernia, you are not alone. A hernia repair is the most common operation that is performed world wide. One in three men will get a hernia repair some time in their life. One in ten women will get a hernia repair.

A hernia is a defect in the strength layer of our abdominal wall which contains our bowels. The main danger is blockage of our bowels caused by a hernia strangulation. A hernia strangulation can be life threatening.

All abdominal hernias need to be repaired because they do not get better by themselves. It is best to repair a hernia when it is small and it is best to repair it before a serious complication like a strangulation occurs. Strangulations are unpredictable and therefore the risk cannot be managed. If you have a hernia, get it fixed.

There many types of hernias and there are many types of repair. Broadly there are pure tissue repairs and mesh repairs. There are open repairs and laparoscopic repairs. I liken a hernia repair technique to a writing instrument. The quality of the writing comes from the hands of the writer. The quality of a repair comes from the hands of the surgeon.

Minimally invasive is a misleading moniker for laparoscopic surgery. Laparoscopic surgery is not safer than open surgery. The entrance wound is small but the trauma inside the abdomen is no less than an open procedure.

A very important consideration for a patient with a hernia is the issue of mesh complications. For decades we have known that hernia mesh causes severe chronic pain in a significant number of patients. But these issues have been dismissed for the sake of the lowest recurrence rates among hernia repair techniques. Unfortunately this dismissal of pain complications has become militant and is approaching institutional denial. Even worse is the fact that when mesh causes chronic
pain clinicians are slow to recognize it and have little to offer in the way of effective treatment.

In most cases hernias may be repaired without mesh and with an acceptably low risk of recurrence.

No Mesh

"Chronic groin pain after hernia surgery is now considered the most important issue facing inguinal hernia surgeons and their patients. Yet, there is still much uncertainty surrounding what causes the pain and how to prevent it." - Victoria Stern, General Surgery

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**Seven Reasons NOT to have Mesh Hernia Surgery**

1) It's bad for you.

2) Mesh is not needed for most hernia repairs. An experienced non-mesh hernia surgeon can achieve repairs which have recurrence rates of less than 3%.

3) Mesh industry wields big money, much like the tobacco industry and Big Pharma and have created an addiction to mesh without regard for human life and suffering. It is a small cost to them which they must bare to achieve their big profits. Surgeons are dependent on mesh. Surgeons are in denial. The tobacco industry denies that smoking causes health problems and they have the medical literature to prove it. The mesh industry denies that mesh ruins lives needlessly and they have the medical literature to prove it.

4) Mesh cause chronic pain in 20% of patients and crippling pain in 5% of patients.

5) Once mesh is put in your body it is not easy to take out and few surgeons are willing to try.

6) Mesh has never been safety tested. The FDA does not require safety testing because it was in use before the FDA had the authority to mandate safety testing. Now mesh is grandfathered in and released to market without proper safety testing.

7) Mesh puts the body’s immune system in a constant state of high alert by triggering chronic inflammation which never abates. We do not yet fully understand the consequences of this. Many mesh patients have problems and symptoms other than pain which they attribute to their hernia mesh.

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**Cognitive Dissonance : The Mesh Mess**

*Why are Doctors so irrational and why are Patients so distressed ?*

I have pondered for a long time why my colleagues who are good doctors and good people...
behave so irrationally and so hurtfully towards their mesh pain patients.

Doctors have a strongly held belief that they are not at liberty to challenge or change. They are locked into this belief because mesh has been deemed the standard of care. So when this belief is challenged by new information or the complaints of their patients, they are thrown into a psychologically distressing state of cognitive dissonance. Their coping mechanism for dealing with this distress is denial and rationalization. They will tell their patients that their pain is all in their heads. The ones who will admit that mesh causes pain will rationalize their involvement by saying to themselves "Well, but mesh is the standard of care." They further rationalize and deny by saying it is impossible to remove mesh. 

In patients, cognitive dissonance is created by their physician denying what they know to be true creates great emotional distress for which they have few coping mechanisms. This results in physical pain, emotional pain, distrust and social isolation

Here is a great article on Cognitive Dissonance on Wikipedia. Read it and I am sure it will strike a serious chord...

What Patients Know: It's the Mesh!

What has always impressed me about mesh pain patients is how quickly and intuitively they realize that their mesh is the cause of their problems. And they do this in spite of their doctors denial. They do this in spite of institutional denial. When ever a patient with mesh pain or other mesh symptom goes to their doctor they are immediately told that it could not possibly be the mesh. So, many of them just stop complaining. Those who persist in their complaints get imaging studies and then get dismissed when the study comes back normal. It is only the patient who has tremendous persistence and fortitude who gets confirmation of their diagnosis and finds a doctor who can help them. In medical practice we have a name for these patients. They are Survivors.

A doctor who listens to many patients about an unusual problem which very few doctors even begin to understand learns a lot. When I first started taking care of mesh pain patients with more than pain symptoms I was at a loss to say anything about those other symptoms. Now that I have talked with thousands of mesh patients and have removed hundreds of mesh implants I have heard certain symptoms over and over, symptoms such as fatigue, fibromyalgia and autoimmune type symptoms and now especially seeing many of these symptoms get better after mesh removal I am convinced that it is the mesh as all of these patients have been trying to tell me for years.

Now, by the most important factor in making a diagnosis of a mesh related problem is what the patient tells me and to what they attribute their problem. Patients know!

The Hernia Mesh Bandwagon
A number of mesh patients have called us recently and have remarked that we are just another member of the mesh bandwagon like all of the attorneys who are advertising on TV and billboards for mesh injury victims. Dr. Petersen has never joined any bandwagon.

Let us set the record straight. Dr. Petersen has been 100% committed to non-mesh hernia surgery for 31 years, far longer than anyone else. Dr. Petersen has resisted considerable pressure to use mesh for all hernia repairs from the state medical board and peers and even his wife now ex. Dr. Petersen has been treating hernia mesh pain victims for 25 years, much longer than anyone else. When the hernia mesh repair bandwagon started in 1992 Dr. Petersen knew it was a bad bet.

Dr. Petersen is so committed to helping hernia mesh pain patients because nobody else will. Dr. Petersen makes public and publishes nearly all of his mesh knowledge here on this website, in medical journals and by presenting at scientific professional meetings. Dr. Petersen is aware that many other surgeons have used his knowledge to enhance their own practices and to help hernia mesh victims. This is immensely gratifying to Dr. Petersen.

Dr Petersen is not on the mesh bandwagon, but it is likely that he contributed to its inspiration. But above all else, the most important thing to him is the interests and well being of his patients.

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**Onset of Hernia Mesh Pain**

The popular use of mesh to repair hernias started in 1992 which was 24 years ago. The oldest mesh that I have removed is 24 years old. Since I started keeping track of these statistics 7 years ago, I have seen 6 patients with mesh placed in 1992.

There are two patterns of mesh pain onset, immediate and delayed. Half of my patients experienced immediate onset of pain starting the day of their hernia surgery and never getting better or going away until they get their mesh explanted. These patients can make the distinction between normal post op pain and their abnormal mesh pain. They say that they experienced excruciating pain right from the start and that they were told by their surgeon that their pain was normal and that it would go away in time. I am inclined to believe that excruciating pain is not normal immediately after surgery and that these patients are high risk for developing chronic pain and for this reason I am willing to explant mesh in these patients without making them wait 3 months. I know other mesh explant surgeons who advise patients to wait one year and I am certain this is wrong. Inordinate delay leads to semi-permanent changes in the central nervous system called central sensitization which is the reason why some mesh pain patients do not get better after explant and why some patients take years to get better after explant. This would be a great study if someone would ever do it but it will never be done.

The other 50% of my mesh explant patients experience delayed onset of their hernia mesh pain. A very common story that I hear from my mesh explant patients is that they can remember the exact day that their pain started because it was triggered by some kind of traumatic event. But other than the pain there is no physical evidence of trauma. Nothing has broke or tore and the
The hernia has not reoccurred. Findings at explant surgery do not indicate that there was trauma. And the pain persists for years and decades after it starts never getting better until the mesh is removed. It is like the trauma was a light switch that turned on the pain. My theory is that central sensitization is mounting while the patient is not conscious of the pain then the trauma causes the central nervous system’s inhibitory mechanisms decompensate. This has been shown to be a real phenomenon experimentally in animal models. Pain perception in mammals is modulated by opposing mechanisms of central sensitization and desensitization.

28% of patients have pain onset after 3 months and 5% of patients have pain onset after 10 years. I have seen patients pain free for 20 years then develop mesh pain. This is of particular concern because it means that we may be seriously underestimating the incidence of hernia mesh pain. I have seen mesh put in patients as young as 15. We have no idea what happens to mesh after 50 or 60 years. I strongly advise young patients not to have mesh hernia surgery.

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**Hernia Mesh Symptoms:**

**Pain, Fatigue, Insomnia, Constipation, Aching Joints, and More**

The following chart lists 26 symptoms that mesh pain patients associated with their mesh in our second annual mesh pain survey. Patients were selected for mesh removal because of pain and therefore the presence of pain is 100% in this survey. The results of mesh removal is also listed.

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Affected</th>
<th>Improved After Mesh Removal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain</td>
<td>100%</td>
<td>93%</td>
</tr>
<tr>
<td>Fatigue</td>
<td>54%</td>
<td>60%</td>
</tr>
<tr>
<td>Insomnia</td>
<td>37%</td>
<td>50%</td>
</tr>
<tr>
<td>Tender scar</td>
<td>45%</td>
<td>56%</td>
</tr>
<tr>
<td>Constipation</td>
<td>31%</td>
<td>55%</td>
</tr>
<tr>
<td>Irritable bowel</td>
<td>28%</td>
<td>57%</td>
</tr>
<tr>
<td>Difficulty passing urine</td>
<td>24%</td>
<td>58%</td>
</tr>
<tr>
<td>Achy joints</td>
<td>26%</td>
<td>54%</td>
</tr>
<tr>
<td>Headache</td>
<td>22%</td>
<td>58%</td>
</tr>
<tr>
<td>Weight loss</td>
<td>19%</td>
<td>70%</td>
</tr>
<tr>
<td>Bulge</td>
<td>16%</td>
<td>82%</td>
</tr>
<tr>
<td>Night sweats</td>
<td>15%</td>
<td>88%</td>
</tr>
<tr>
<td>Neuropathy</td>
<td>25%</td>
<td>52%</td>
</tr>
<tr>
<td>Indigestion</td>
<td>17%</td>
<td>56%</td>
</tr>
<tr>
<td>Rash</td>
<td>12%</td>
<td>85%</td>
</tr>
<tr>
<td>Autoimmune disorder</td>
<td>15%</td>
<td>56%</td>
</tr>
<tr>
<td>Itching</td>
<td>15%</td>
<td>63%</td>
</tr>
<tr>
<td>Heart burn</td>
<td>12%</td>
<td>77%</td>
</tr>
<tr>
<td>Memory loss</td>
<td>15%</td>
<td>56%</td>
</tr>
<tr>
<td>Impotence</td>
<td>12%</td>
<td>54%</td>
</tr>
<tr>
<td>Blurry vision</td>
<td>11%</td>
<td>50%</td>
</tr>
<tr>
<td>Prostatitis</td>
<td>8%</td>
<td>67%</td>
</tr>
</tbody>
</table>
Sinisitis  5%  80%
Bloody semen  4%  50%
Draing wound  3%  67%
Enlarged lymph nodes  *  *
Nausea  *  *
Abnormal menses  *  *
Foggy head  *  *
Cystitis  *  *
Suicidal thoughts  *  *
* Not surveyed

Mesh causes chronic inflammation which likely is linked to many of these symptoms.

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**Why does Hernia Mesh Hurt?**

**Why** should it not hurt? It is a foreign material that does not belong in our body. It is recognized as foreign by our innate immune system and by our nervous system. It stimulates inflammation which triggers pain. It stimulates nociceptors which triggers pain. However only about 20% of patients with hernia mesh develop chronic pain.

Hernia mesh explant

Pain is a cognitive experience produced by the brain, not simply an input from the body. Pain is a warning to the body that there is danger. It starts with a stimulus, thermal, mechanical or chemical which is picked up by a receptor, exceeds a threshold, triggers a nerve fiber signal, is received by a neuron, is relayed to a spinal neuron, is amplified or muted, is relayed to the amygdala, triggers emotional processing and then is relayed to the cerebral cortex where it enters consciousness. It is a delicately balanced process with modulation and processing at multiple levels. The complexity of pain processing makes pain disorders difficult to treat.

Our nervous and immune systems modulate the sense of pain so that not every stimulation produces pain. Pain perception has a threshold below which no pain is perceived. Pain is different from touch. It is not just a matter of degree. Pain of any degree triggers protective behavior and emotional conditioning. Imagine the chaos in our lives if every touch caused pain to some degree.

Allodynia is pain detection below the normal stimulation threshold. That is, pain caused by a light stimulation which does not normally cause pain is called allodynia. Patients with chronic pain frequently experience allodynia. Experimentally this can be reproduced in human test subjects by applying pressure to a limb with a pressure cuff until the subject experiences pain. When the pressure cuff is then applied to the opposite limb the pain is reported by the subject at a lower pressure. This is also known as central sensitization.

Hyperalgesia is pain whose amplitude is amplified. Central sensitization causes Hyperalgesia. The test subject with the pressure cuff on one limb will report a more intense pain in the opposite
limb at the same pressure.

Chronic pain states are disorders of central sensitization and failure of desensitization mechanisms.

Chronic inflammation causes the production of nerve growth factor (NGF). NGF causes central and peripheral sensitization. This is shown experimentally by administering NGF intravenously in human test subjects. Hernia mesh causes chronic inflammation and may be causing central and peripheral sensitization by this mechanism.

Tanezumab is a monoclonal anti-NGF antibody that is currently in Phase II clinical trials for the treatment of low back pain and pain of osteoarthritis of hips and knees. It is of particular interest to me as an adjuvant for the treatment of hernia mesh pain. Hernia mesh pain patients have allodynia and hyperalgesia which is mediated by nerve NGF and neuroplastic changes in the central nervous system. A significant number of mesh explant patients still have pain one year after explant, which is undoubtedly caused by central sensitization. Patients with persistent pain at one year do continue to get better at 2 years. I have a patient who attributes his recovery going into his second year to Pilates and another to bicycling. I have seen the same recovery with no specific therapy and it is my opinion delayed recovery is due to slow reversal of central sensitization. Tanezumab could be the key to treating these difficult cases. Blocking NGF may mitigate the central sensitization and accelerate the normalization of pain sensitivity, that is, correcting allodynia and Hyperalgesia.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4252012/
Nerve growth factor: an update on the science and therapy. Seidel MF, Wise BL, Lane NE. Osteoarthritis and cartilage / OARS, Osteoarthritis Research Society. 2013/09/01 00:00; 21(9): 1223-1228

ClinicalTrials.gov : https://clinicaltrials.gov/ct2/results?term=tanezumab&Search=Search

Pain-Related Sexual Dysfunction after Inguinal Herniorrhaphy

Pain during and after sex is the most common problem that hernia mesh causes. Aasvang found that its incidence was 22.1% in males 18 to 40 years of age in the Danish hernia database. He also found that overall the incidence of chronic pain was 18.4%. The reports of the incidence of chronic pain in the medical literature range from 30% to 10%. The closest to a consensus from other hernia surgeons who I know and respect is that the correct number is a 20% incidence of chronic pain after mesh inguinal hernia surgery.

The vas deferens is a muscular and innervated tube which carries sperm from the testical to the prostate. Inguinal hernia repair, laparoscopic and open anterior approach, places mesh in direct contact with the vas deferens. Experimental implantation of mesh in dogs demonstrates complete obliteration of the vas deferens in 9 of 10 dogs. Human specimens demonstrate the mesh invading the wall of the vas and the neural plexus of the vas. There are reports of bilateral
inguinal hernia repair being associated an increased incidence of infertility. It is only surprising that the incidence of pain related sexual dysfunction after mesh inguinal herniorrhaphy is not higher.

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**Advice to Patients with Chronic Pain after Mesh Hernia Surgery**

**You** are going to be okay. There are some pitfalls that I want to warn you about but I want to reassure that there is treatment for hernia mesh pain and most patients getting the right treatment recover.

I have found that patients with hernia mesh pain are very aware that the cause of their pain is their mesh. This is in spite of what their doctors are telling them. The simple fact is that 20% of patients with hernia mesh go on to develop chronic pain. Hernia recurrence is only a 2% risk. So a patient with hernia mesh and chronic pain chances are that their mesh is the cause of the pain. So the first bit of advice that I have for hernia mesh pain patients is do not let anybody tell you that it is not the mesh.

The reason that mesh causes pain is because it is recognized by your body as foreign and your body responds by mounting chronic inflammation. Chronic inflammation causes pain. Period. It is not an error in surgical technique. It is not because the mesh has moved. And the odds are against a hernia recurrence.

Imaging studies such as CT scan, MRI and ultrasound are for the most part worthless for evaluating a patient with hernia mesh pain. There are rare cases of hip disease and kidney stones that can be confused with mesh pain but these diagnoses should be clinically evident. Imaging studies typically show nothing wrong with the mesh if in fact the mesh is visualized. On most imaging studies the mesh is invisible. Unless an alternate diagnosis is suspected imaging studies are a waste of time and money.

Be very wary of a surgeon telling you he thinks you may have a small hernia recurrence causing your pain. The last thing that you want to do is submit to exploratory surgery. At surgery there is nothing to be found. Pain is not caused by a single nerve entrapment, a broken stitch or an invisible hernia. The only reason to go to surgery is to remove the mesh. The worst cases that I have seen are patients who go back to surgery and get more mesh placed for a nothing hernia recurrence.

If you get sent to pain management that means that your surgeon has given up on you. They will give you pain medication to cover up your pain or they will do nerve procedures to temporarily block your pain. None of this will cure your pain. I no longer require patients go through a trial of pain management before mesh removal.

Patients with chronic pain after mesh hernia surgery need to know who are the doctors who have experience taking care of this condition. I am one of them. A list can be found at:
Who is a Candidate for Mesh Removal?

The decision to remove hernia mesh is often easy but can also be very difficult. It is almost always based on a patients subjective complaints. Mesh pain is a clinical diagnosis. There are no blood tests or imaging studies that makes the case. Even physical exams are immaterial.

Twenty years ago I saw in consultation a middle aged man who was unable to work due to severe groin pain. He had two years previously had mesh inguinal hernia surgery on the exact location where he developed pain. He rated his pain as a ten out of ten. He had seen a dozen doctors trying to find help. Pain medications, various injections and physical therapy all failed to provide sustained relief. CT scan, MRI and Ultrasound showed no hernia recurrence or any other abnormality. I offered the patient mesh removal because it was obvious to me that the mesh was causing his pain. I had to tell the patient I had never done the surgery before, I had never heard of anyone doing it and I could not tell him with certainty what the results would be. I told him I thought something had to be done but I had nothing else to offer. The patient, who I thought was a very intelligent and reasonable man, told me he understood and asked me to do the surgery. I removed his mesh, he recovered, his pain went away and he returned to work. At one follow up visit he told me I saved his life. This was immensely gratifying for me. I had helped somebody that nobody else would or could.

If I had not been successful with my first case I probably would have stopped there. But I was encouraged to do my next case and then the case after that selecting new cases similar to my first. By the time I had my first patient who did not improve after the surgery the successes gave me enough confidence that I could tell the next patient what the odds were of success and failure.

As time goes on and case experience grows I am able to loosen my selection criterion. At this time I believe anyone with a pain rating of 7/10 or above is a solid candidate. I have found that patients with severe mesh pain who have mesh removed and only a little better are still happy that the mesh is out.

Patients with lesser pain may be a candidate but that decision is a lot more complicated. I will turn down patients who I think have unreasonable expectations. I will turn down patients who I think will need mesh replaced. I do not think that operation makes sense or works. I will remove mesh for any patient who simply wants it out and does not have unreasonable expectations.

Non-pain indications for mesh removal are evolving at this time. Our second annual mesh pain survey gave us a lot of information about other symptoms and problems that mesh pain patients attribute to their mesh. It is a very interesting observation that in many of these cases the symptom or problem goes away when the mesh is removed.

Confounding factors in selecting and successfully treating patients with hernia mesh pain include post traumatic stress disorder, complex regional pain disorder, secondary gain, depression, body
dismorphic disorders and others. But hernia mesh pain is real and is not a psychological condition.

When a life is completely ruined by severe pain, mesh removal is justified. It is important that patient understand the risks and the statistical results. Patients must have reasonable expectations. Mesh removal helps most patients but not everybody. We are working on that.

**Why do some surgeons say hernia mesh should not be removed?**

**Ignorance.** I am sorry to say so but it is true. Mesh was not designed to be removed. If you succeed in removing it then you have to redo the repair. Few surgeons have confidence in their ability to repair a hernia without mesh. Also, a surprising number of hernia surgeons fail to recognize mesh pain, preferring to attribute pain to an occult hernia recurrence.

The first time I ever removed mesh was twenty years ago. I had never heard of anybody doing it and I told the patient so. This patient was crippled by the mesh, he knew it and I knew it. I thought it was achievable and I was confident I could handle any trouble that I might get into. I thought it was worth a try, so did the patient. Since then I have convinced myself and a few of my colleagues that mesh removal for pain can be done safely and with significant benefit most of the time. A few other doctors that I know are working on this in Europe and Canada and are achieving results similar to mine. Last Spring, I presented my data to my peers at the First World Conference of Abdominal Wall Hernia Surgeons in Milan, Italy.

**Mesh Removal Survey II Results**

**Our** second annual mesh removal results survey has been completed. We have had 75% respondents. I am reporting result. I thank all of those who contributed. I promise that this information will be used to help other patients.

The one finding that is the most significant and disturbing to me is the answer to the question "What have you lost or what has been the consequences of your mesh pain complication?" The reply given by 63% of respondents is "Lost faith in doctors."

Doctors are human to the extent that they cannot preform miracles and cure every patient. We try to. We want to. But we do not succeed in every case. In spite of this patients for the most part have tremendous faith in us. I believe this is because patients know that we care and are professionals. When they lose faith in us there is something seriously wrong.

Nearly all of my mesh pain patients have been told by more than one doctor "There is nothing wrong with your hernia repair. I do not know why you have pain. I suspect that it is all in your head."
Patients know better. And this is why they give up on their doctors. They have lost faith in their doctors because their reality tells them that their doctor does not have a clue, is not listening or worse does not care. If a single patient loses faith in me there should be a really damned good reason in my defense or I am not worthy of being called a doctor.

Consequences // Affected
Unable to exercise // 73%
Gave up recreational activities // 66%
Depleted savings // 65%
Lost faith in doctors // 63%
Lost job/unemployed // 30%
Had to put business plans on hold 28%
Forced to retire // 13%
Lost insurance // 13%
Tapped into retirement // 12%
On disability // 10%
Bankrupt // 9%
Lost home // 8%
Divorced // 7%
Took second mortgage // 6%
Had to quit school // 1%

I think that these numbers are important because they reflect the real human cost of mesh pain. The number one end point result that hernia doctors are interested in is hernia recurrence. I believe that this is very short sighted. I'll take a hernia recurrence over a case of life long chronic pain any day.

A very common question that I have been asked by mesh pain patients is "Will my other symptoms or problems get better?" I can now answer this question precisely. This is a another important result of the Second Annual survey. I have learned just talking to patients that they have many different symptoms. Some of these symptoms are a more important issue for some patients than the pain.

Symptom or problem // Affected // Improved
Fatigue // 56% // 64%
Tender scar // 47% // 45%
Insomnia // 40% // 56%
Constipation // 34% // 57%
Irritable bowel // 29% // 58%
Achy joints // 27% // 58%
Difficulty passing urine // 26% // 65%
Neuropathy // 25% // 45%
Headache // 24% // 57%
Itching // 21% // 47%
Indigestion // 19% // 59%
Memory loss // 18% // 56%
Fatigue affects 56% of patients and 64% of these patients say mesh removal made this better. I talked to one patient today who told me that she drives 30 miles one way every day to visit her elderly mother. Before the mesh was removed she could not make the trip without stopping to take a nap. After the mesh removal she regained all of her get up and go. She does not need naps ever and she is back to work.

Constipation was improved in 57% of affected patients. From my hernia patients I have learned that constipation is a very important concern for many patients. My secretary keeps telling me I should create a website dedicated to constipation.

Impotence was improved in 70% of affected patients. Patients do not talk to their doctors about it as much as they should for obvious reasons. A 70% cure is a big deal.

Doctors tend to ignore complaints from their patients that they cannot explain or do not fit into their theory of what is wrong with the patient. This just goes to show and prove that a doctor has to listen to his patient’s complaints.

**Treatment of Pain**

Hernia mesh removal was preformed for treatment of pain. Prior to mesh removal our patients average pain score (1-10) was 8.4. After mesh removal it was 2.6. These results were distributed as shown on the following diagram.

Patients who say their pain was cured report their pain went from 8.5 to 0.4 out of 10. Much better went from 8.2 to 2.5. A little better went from 7.5 to 4.5. No change went from 9.0 to 5.6. Much worse from 9.0 to 5.7. These numbers are subjective and we have to be careful in their interpretation. Such is the nature of chronic pain. I am inclined to take a patient at their word.

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**A Note to Hernia Surgeons**
This website [https://www.noinsurancesurgery.com/] receives about 2,000 visitors per day. I know for a fact that many of our visitors are physicians and hernia surgeons. If you are a hernia surgeon, first of all, thank you for visiting. But now that I have your attention, please read and carefully consider the following. You have been misled by a powerful industry whose number one objective is to sell a product.

The very first standard of care that we physicians are taught and learn to hold above all others is Primum non nocere. The second is to put the patient’s interests above all else. The third is to treat a patient to the best of our ability assuming full responsibility for our choices of treatment. There are more and this is not exactly the Hippocratic Oath but these are the most essential. It is these principles that distinguish a physician from a peddler.

So how does this apply to the standard of care in hernia surgery?

We repair hernias to prevent the inevitable progression of the hernia and hernia complications. No recurrence after hernia surgery has been held out as the most important end point and outcome of hernia surgery. But according to our first standard of care we have to make sure that we are not harming patients.

When we do the standard of care we find comfort for ourselves no matter the outcome of our treatment because we preformed the “Standard of Care”. What else could be expected of us. Are we putting our interests above those of our patients? Are we abrogating responsibility for our therapeutic choices.

Hernia mesh causes chronic pain in 10% to 30% of patients. It causes crippling, life destroying pain in 2%-5%. Only considering recurrences is likely leading to a violation of our first obligation. Consider crippling pain. How many recurrences is one case of crippling pain worth? Remember this crippling pain responds to no treatment and will be life long. It is almost as bad as a death.

If the only way to repair a hernia was to use mesh then calling it the standard of care would be appropriate. But in the tradition of Basinni and those who followed low recurrence rates are achievable without the risk of severe crippling chronic pain. But not every surgeon can do a good Basinni. Is that why mesh was designated as the standard of care? Why should a surgeon who can do a good Bassini or Shouldice repair have to contend with this self serving notion of standard of care. Does it really benefit the patient?

I have spoken with thousands of mesh victims and have operated on hundreds. It’s enough to make me think that hernia surgeons are mesh peddlers. Before surgery patients are not being told of the risk of chronic pain and they are not being told that there are alternatives to mesh hernia surgery. After surgery patients with mesh pain are being told that nothing is wrong and that the pain is all in their head. This violates all of the principles that are the heart and soul of our profession.

I do not believe that hernia surgeons know that they are participating in peddling mesh. The
industry has infiltrated every aspect of the hernia surgeons world. Manufacturers support research, society meetings, education and marketing. This is sealed and stamped with a label of approval by calling mesh the standard of care.

This is the problem with accepting anything as the standard of care. Who ever is promoting this is telling you to stop thinking.

A very common problem that I see every day is hernia surgeons misinterpreting chronic pain after hernia surgery as being a sign of a hernia recurrence and treating it as such. The risk of chronic pain after mesh hernia surgery is 20%. The risk of a hernia recurrence is 2.5%. It makes no sense for a surgeon to put recurrence on the top of his differential diagnosis list for a patient who presents with chronic pain after mesh hernia surgery. This bias is a consequence of the coercive nature of the designation standard of care.

Mesh is not the standard of care. It is one of the tools that you have for fixing hernias. It has advantages and disadvantages. There are good alternatives. No recurrence is not the only important end point of hernia surgery.

Dr. Kevin C. Petersen, M.D.

A Career-Long Commitment to Non-Mesh Hernia Repairs
Thirty-five years ago, while in training, Dr. Petersen was warned by his instructors that "We do not really know what the dangers of hernia mesh are." In 1986 Dr. Petersen went into private practice as a general surgeon after completing training and passing his boards. Over the next 6 years he continued to repairs hernias exactly as he was taught, satisfied with his results as were his patients were. 1992 the surgical world overnight made a dramatic change, nearly everyone adopted mesh as the standard of care for hernia repair citing significantly lower recurrence rates. But still no one knew what the risks were. It had not been studied. Because of this and because he knew what his recurrence was low Dr. Petersen resisted enormous peer pressure and continued doing hernia repair exactly as he had been taught by surgeons whom he considered to be the finest in the world. Within two years Dr. Petersen started seeing patients with crippling groin pain that he could only attribute to hernia mesh implanted by other surgeons. The first patient he removed hernia mesh from was cured of his pain, regaining his life. That launched his career long interest in treating hernia mesh pain and his commitment to non-mesh hernia repairs.

Traditional Hernia Surgery Nearly a Lost Art

Non-mesh repairs were successfully preformed for more than 100 years. The trouble was not all surgeons learned how to do them correctly and on the average recurrences rates were high. This was a great opportunity for mesh manufacturers to step in and teach everyone how to repair a hernia with a low recurrence rate using their product and making huge profits. Unfortunately there was no economic drive to preserve the art of non-mesh hernia repairs. The medical literature has many publications of the excellent results of single surgeon non-mesh hernia repairs and one world renowned hernia clinic, the Shouldice Hospital, in Toronto, Canada.

Pure Tissue Repairs Have Great Results in Expert Hands

A properly done non-mesh hernia repair is not a tension repair. It preserves normal anatomy while repairing the injury. It does nothing to upset our body like inject a foreign material which triggers a reaction from our immune and nervous systems in the end resulting in chronic pain. In dedicated expert hands recurrence rates are less than 3%. The incidence of chronic pain is less than 1%.

There Are a Few Surgeons Trying to Preserve the Best of Hernia Surgery

Dr. Petersen has 30 years dedicated experience to non-mesh hernia repair. Dr. Petersen’s views go strongly against the mainstream. But their are other surgeons like him around the world. We are publishing and speaking at professional meetings. Without being overly optimistic we would like to say that other surgeons are beginning to listen.

Please peruse this website. Nearly any question you might think of to ask about this controversy is likely to be answered here. If this means anything to you please pass it along.

-- Kevin C. Petersen, M.D.

http://www.noinsurancesurgery.com
No Insurance Surgery - An Alternative to Big Business Health Care

In surgery you want a surgeon who has no conflicts of interest and is capable of going against the influence of big business to give you better than The Standard of Care.

Your No Insurance Surgery Surgeon only has one interest, the well being of his patients. You will not get this from a surgeon who is basically an employee of an insurance company, a hospital or a medical group. These are not independent doctors. They are not allowed to think for themselves. They have to follow Practice Guidelines and the Standard of Care and what everybody else does which are edicts created by big business and doctors who are heavily influenced by big business. According to the Federal Governments Open Payments Database US doctors are paid $8 billion every year by medical device manufacturers and pharmaceutical companies. The dictum that Mesh is the Standard of Care in Hernia Surgery has been heavily influenced by the mesh manufacturing industry. Please read this article in The Hernia Letter.

How important is independence? Sometimes it's everything.

The Future

Doctors as well as patients are very concerned about what will happen to American health care in the future. It is our belief that the essence of health care is the doctor-patient relationship. No Insurance Surgery is committed to providing high quality care to patients today without the need for public or private third parties.
Open Letter in Support of Mesh Pain Patients

Many of my mesh pain patients request I write a letter for them to their doctor, their employer or to their family explaining their condition. My patients have found this letter to be very helpful. Because I think this letter can benefit many more patients, I have written it as an open letter. You do not have to be my patient. We suggest that you download it and print it as you see fit. I will back you up. You can download it here (updated 5/21/2018) :

https://www.noinsurancesurgery.com/hernia/Open%20letter%20in%20support%20of%20mesh%20pain%20patients.pdf

1st World Conference on Abdominal Wall Hernia Surgery - Milan 2015

Dr. Petersen recently attended the 1st World Conference on Abdominal Wall Hernia Surgery held in Milan, Italy April 2015 as faculty presenting Results of Hernia Mesh Removal for Pain. The conference covered nearly every aspect hernia surgery prominently among them the problem of severe chronic pain after hernia surgery, it's prevention and treatment.

https://herniameshvoices.wordpress.com/

Hernia Mesh Voices : What Mesh Victims Say
Highlighting the extent of hernia mesh complications

https://thehernialetter.org/issue-one/the-hernia-letter/

Introducing The Hernia Letter

The Hernia Letter is a professional Online publication created by an international group of hernia specialists directed towards hernia surgeons and primary care physicians to challenge the notion that mesh is the standard of care for all hernia repairs, to raise awareness of the serious complications of hernia mesh and to preserve the legacy of expertly preformed non-mesh hernia repair. The emphasis is on a professional, credible and unbiased examination of scientific evidence.
The Letter will point out the undue influence of the hernia mesh manufacturing industry on professional societies and research, blatant conflicts of interest and abuses of data interpretation. The first publication of The Hernia Letter was in July of 2018. Please help us spread the word. Share widely especially with your primary care physician and surgeon.

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