# FLECTROCONVULSIVE THERAPY: A SECOND OPINION

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If you thought shock treatment was a thing of the past, you're wrong. ECT is making a comeback, with its supporters saying it helps depression and prevents suicide. There are three things you should know, though: It doesn't help depression. It doesn't prevent suicide. And patients coming out of this treatment can have more problems than they did going in – including death.

A grand mal seizure, when muscles contract violently and uncontrollably, is something doctors ordinarily try to prevent. Yet, with shock therapy's dramatic comeback, doctors are intentionally producing this type of seizure as a medical treatment. Shock therapy's advocates, who refer to the procedure as electroconvulsive therapy (ECT) to soften negative associations, proclaim that ECT is safe, painless, and effective. It's the best treatment for deep depression, they say, and it saves lives by preventing suicide. Moreover, they claim, side effects, such as memory loss, are only temporary. The trend appears to be growing, with ECT now being used for a number of psychiatric ailments, including schizophrenia and obsessive-compulsive disorder, and even for some non-psychiatric conditions, such as Parkinson's disease.1

But paralleling the growth of ECT is the growing number of critics of the treatment, both within and outside of the psychiatric establishment. Shock is not just ineffective, the opposition claims, it often leaves recipients in a worsened condition than before treatment. Depression and suicidal ideation soon return, complicated by ECT-induced brain damage and memory loss. Plus new conditions, such as epilepsy and heart arrhythmias, can develop. Moreover, signing the permission form for this treatment may be signing your life away, as the risk of death during or soon after the procedure is great, far higher than ECT proponents admit, in part due to the targeting of fragile elderly populations. ECT's most ardent challengers, often former patients themselves, wonder how healing professionals could have forgotten their Hippocratic Oath to do no harm. They assert that ECT is a barbaric procedure that must be banned.

In considering these diametrically opposed views, the tendency of the average person is to side with established medical authority and disbelieve the critics. After all, this is a supposedly therapeutic approach that's been widely used around the world for three-quarters a century. Well-credentialed doctors are telling us that ECT is the single best therapy for alleviating depression and preventing suicide, and this is at a time when more than 30,000 Americans are taking their lives annually.

Reasonableness would have us assume that the issue has been properly researched; the public views doctors as trustworthy, intelligent, and highly knowledgeable, if not godlike. On the other hand, critics of ETC are often those who have themselves been exposed to it, people labeled mentally ill. In our culture a mental patient is considered an irrational person, one not to be trusted. So when patients' rights groups assert that people are being harmed, and in many cases forcibly shocked against their will, the tendency is to disbelieve, to think this can't be happening. It's easy then to be swayed by distinguished doctors from prestigious universities and to dismiss the words of psychiatric patients as paranoid and delusional.

One has to look beyond cultural assumptions to get to the reality of the situation. The fact is that over the years ECT has been the subject of numerous well-researched studies, many by ECT proponents themselves. They reveal, in brief, the following:

ECT does not eliminate depression. Studies acknowledge a significantly high relapse rate just four weeks following treatment.2 3 4 5

ECT is not a deterrent against suicide.6 7

ECT damages the brain, and can cause permanent memory loss, seizures, and epilepsy.8 9 10 11

Death rates from ECT may be as high as 1 in 200.12

The Food and Drug Administration (FDA) classifies ECT machines as Class III devices. This means they are high risk, unsafe, and pose an unreasonable risk of injury or illness. Furthermore, the benefits of Class III devices have not been shown to outweigh the risks they pose.13

ECT experts in support of the modality have lucrative financial ties to the shock machine industry.

One would expect these findings to place this controversial procedure under scrutiny, when, in fact, the opposite is occurring, with 100,000 Americans receiving treatment annually and with the numbers growing.

# **Barbarous Beginnings**

"When I saw the [first] patient's reaction, I thought to myself: This should be abolished!" - Ugo Cerletti, the originator of shock therapy

Although we tend to celebrate medical advances, the history of medicine is also replete with failure and fraud. Treatments for mental illness have been particularly susceptible to quackery, starting with the notion that evil spirits are to blame for the condition, and that inducing fever or vomiting could drive them out. Another early notion was the idea that insanity and epilepsy could not occupy the same brain at the same time. The practical application of this notion was seen in the treatment of some mental illnesses with huge doses of insulin and other drugs to create seizures. Seemingly remarkable – albeit short-term – improvements were sometimes noted with this approach.14 Thinking along these lines, an Italian professor of psychiatry, Ugo Cerletti, concluded that using electricity to induce seizures in psychotic inmates could drive out insanity.

It's not a fact publicized by today's ECT advocates, but Cerletti, pioneered the procedure after witnessing slaughterhouse operators shock pigs into epileptic fits in order to facilitate the slitting of their throats. His initial experiment in the human realm was with a 39-year-old engineer found wandering in the streets. Because the man was speaking gibberish, he was sent to Cerletti for observation. Cerletti diagnosed him with Schizophrenic Syndrome. Treatment consisted of electrifying the man's temples with a pair of tongs used to stun hogs, after which the fellow "burst into song."15 As no seizure was induced, Cerletti and his colleagues discussed raising the voltage, an idea to which their subject, who had apparently returned to his senses, now responded, in perfect Italian, "Not another one! It's deadly." Despite his own reservations, Cerletti administered a second, stronger current and caused a seizure.16 17 From these questionable beginnings, ECT was born.

In 1938, Italian psychiatrist Lucino Bini helped Cerletti build the first shock machine. Its use induced strong convulsions and caused irreversible brain damage. This led to the use of electric shock to destroy the personality. In 1942, Bini devised a procedure that he named "annihilation therapy." This was nothing less than the repetitive use of ECT, many

times a day, to induce a state of severe amnesia, something Bini believed would be useful for treating patients with obsessions, depression, and some types of paranoia. The effect of annihilation therapy has been compared to the state induced following a prefrontal lobotomy.18

One of electroshock's most zealous advocates was German psychiatrist Lothar B. Kalinowsky, who initiated the technique's use throughout Europe and vigorously promoted it in the U.S. Initially, the American psychiatry rejected the idea that brain damage could foster healing, but it soon changed its mind and embraced the technique. In 1942, one impassioned advocate, Dr. Abraham Myerson, commented: "The reduction of intelligence is an important factor in the curative process...The fact is that some of the very best cures that one gets are in those individuals whom one reduced almost to amentia [mindlessness]."19 Notes Moira Dolan, an Austin, Texas, doctor who advocates a ban on the procedure, "When we look back at the beginnings of electric shock there was truth in advertising [with such labels as] as annihilation therapy and amentia."20

It should also be stated that some of electroshock's pioneers felt sickened by what they initially witnessed. The first time Kalinowsky observed ECT he turned pale, and later said to his wife, "I saw something terrible today – I never want to see it again."21 Cerletti shared similar sentiments at the beginning: "When I saw the patient's reaction, I thought to myself: This ought to be abolished! Ever since, I have looked forward to the time when another treatment would replace electroshock."22

#### Ward Control and Coercion

"The Shock Shop...might be said to do the work of the sleeping pill, the electric chair, and the torture rack. It's a clever little procedure, simple, quick, nearly painless it happens so fast, but no one ever wants another one. Ever." - Ken Kesey, One Flew Over the Cuckoo's Nest23

Once ECT was adopted in the US, abuse of this modality became common. This is not to say that the treatment is not in and of itself an abuse, but from the 1940s to the 70s, shock treatments were often given in psychiatric hospitals not just as treatment, but to quiet or punish patients. Notes one woman I interviewed, of her experience in the early 70s: "I wasn't depressed; I wasn't suicidal...They were shocking everyone on the ward – the young, the really old, everyone...What were they shocking us for?...Ward

control?" Medical historian David J. Rothman of Columbia University points out that ECT stands practically alone among medical/surgical interventions in its role as a patient control mechanism used for the benefit of the hospital staff.24

Gross mistreatment on psychiatric wards went largely ignored until the publication of Ken Kesey's best-selling 1962 semi-autobiographical novel (later made into a popular movie and play), One Flew Over the Cuckoo's Nest. The story's hero, a rebellious psychiatric inmate named McMurphy, refused to have his spirit broken by Nurse Rached, a figure of oppressive authority, and his punishments become increasingly worse. To quote one excerpt: "They gave McMurphy three more [shock] treatments that week. As quick as he started coming out of one, getting the click back in his wink, Miss Rached would arrive back with the doctor and they would ask him if he felt like he was ready to come around and face up to his problem and come back to the ward for a cure."25 Kesey's tale struck a chord with the public and was a major factor – along with published accounts of real-life shock mistreatment, as well as the creation of Thorazine and other antipsychotic drugs – in electroshock's decline.26 By the mid–1970s, ECT was out of fashion. Psychiatry favored drugs because they were inexpensive, widely available, and less of a public concern.

Economic factors of the 1980s brought ECT into the limelight once again, particularly insurance policies that refused to pay for lengthy therapies but readily reimbursed short-term hospital procedures like ECT. Since then, electroshock has received glowing endorsements from numerous organizations, including the National Institutes of Health, the National Alliance for the Mentally III, the National Depressive and Manic Depressive Association, and the American Psychological Association. This last organization takes an active role in ECT advocacy. This includes fighting attempts to restrict the procedure, and working to relax current standards so that shock therapy will become an initial, rather than last–resort, treatment for the depressed.27

Has economic incentive resulted in unethical practices in psychiatric hospitals today? Certainly there are many instances when people are coerced into the procedure. It's true that written consent is required, but consent can be coerced. Dr. Moira Dolan, who works for patient advocacy, explains how this happens: "They're put in straightjackets and placed in a padded room where they are told that they will not be able to get out until their next competency hearing in 30 to 60 days unless they sign on the dotted line for electroshock."28 Dolan has also reviewed a malpractice case in which an

exclusively Spanish-speaking, illiterate person was asked to sign an English consent form. "That's not truly informed consent," Dolan points out, "but by then they've got you."29 In other words, once you've signed on the dotted line, it's too late to change your mind.

Consider the plight of Haitian immigrant Paul Henry Thomas, an inpatient at Pilgrim Psychiatric Education Center on Long Island. Thomas initially signed for the procedure in 1999 but decided after three treatments that he had had enough. Nevertheless, the treatments continued to be given, by force. Legal action on Thomas's behalf proved fruitless when a New York Supreme Court judge ruled that shock could continue. Thomas, like other psychiatric patients, finds himself in a Catch–22 situation in which he is supposedly fit enough to consent to treatment, yet after being given the electroshock designed to help him, he is no longer considered capable enough to know what is in his best interest.30

# Controlled Brain Damage

"...with each flash a great jolt drubbed me till I thought my bones would break and the sap fly out of me like a split plant.

I wondered what terrible thing it was that I had done." Sylvia Plath, The Bell Jar31

Isn't today's ECT more humane than the treatment given years ago? In a sense, yes. It's no longer like the early days, when patients jerked as they convulsed and suffered terrible headaches afterwards. The modern version of shock treatment, known as "modified" ECT, gives no evidence of bodily harm thanks to muscle relaxants and general anesthesia given beforehand and headache medication afterwards. The procedure is now as clean and quick as a doctor setting a dial to a patient's age and pressing a button. Vital signs are monitored and supplementary oxygen supplied to protect the brain. Electroshock advocates argue that these precautions make the procedure simple and safe, an assumption that an observer might easily digest, as only the curling of the toes indicates that anything at all has taken place.

Although present-day modifications can help in certain ways by reducing a patient's fear and stopping flailing movements that can cause bone fractures, the treatment itself - the zapping of the brain with an electrical current - is unchanged, and inevitably results in brain damage. According to the National Head Injury Foundation, each treatment equals

one moderate-to-severe head injury.32 And as a series of shocks are prescribed – eight to fifteen on average and as many as one per month on an indefinite basis – the wounding intensifies. In 1983, Dr. Sydney Samant described what happens in the following way: "As a neurologist and electroencephalographer, I have seen many patients after ECT, and I have no doubt that ECT produces effects identical to those of a head injury. After multiple sessions of ECT, a patient has symptoms identical of those of a retired, punch-drunk boxer...After a few sessions of ECT the symptoms are those of moderate cerebral contusion, and further enthusiastic use of ECT may result in the patient functioning at a subhuman level. Electroconvulsive therapy, in effect, may be defined as a controlled type of brain damage produced by electrical means."33

The fact is that the intent of ECT is to produce a torrential brain storm, a grand mal seizure lasting from 30 seconds to a minute or more. The amount of power needed to so do is enough to set off a barrage of devastating effects. Dr. Peter Sterling, a neurobiology professor at the University of Pennsylvania, outlined the injuries that occur in his testimony before the Standing Committee on Mental Health of the New York State Assembly 1978. Sterling described how convulsions caused by electrical shocks to the brain cause what amount to a cascade of changes, with many of the brain's natural protections being broken. There's a massive rise in blood pressure, cerebral blood flow regulation breaks down, and so does the blood-brain barrier. Such changes can then lead to alterations in brain chemistry and physiology, as well as gross pathology, such as brain swelling and hemorrhages, which lead to the death of neurons.

Such changes, Sterling went on, are also associated with persisting, probably permanent amnesias concerning life experiences. Sterling concluded that at all levels – from changes in blood pressure to losses in memory – there is extreme variability. Losses can, however, be catastrophic after only a few shocks.

At times catastrophe can be immediate due to the massive rise in blood pressure that occurs with ECT. It begins when the treatment causes a giant increase in the brain's demand for oxygen. To meet this demand, blood flow to the brain increases by as much as 400 percent, with blood pressure elevating up to 200 percent. This sudden, enormous increase in blood pressure can result in hemorrhaging, the rupturing of blood vessels. In many instances, autopsies of people who have died during or shortly after ECT treatment attribute the death to hemorrhaging. Any attempts to prevent brain damage by giving the

patient supplementary oxygen will not only fail but also worsen the scenario, as oxygen only prolongs the seizure, resulting in greater neuron necrosis (death).

Destruction of the blood-brain barrier is another problematic consequence of ECT. This defense system has evolved to keep harmful substances way from the brain's vicinity. Once it's compromised, undesirable products, such as drugs and foreign matter, can easily leak out of blood vessels into brain tissue. That, in turn, causes brain swelling to occur. Nerve cells and other tissues become starved for oxygen and die. After the swelling subsides, fluids will have been absorbed, and the brain shrinks, or atrophies. Because brain shrinkage is commonly seen in the elderly, ECT has the effect of accelerating the aging process tremendously.

After electroshock, levels of arachidonic acid rise in the brain. This can result in small strokes throughout the organ. The damage can occur randomly, not just where ECT took place, and can cause death.

It should be understood that the injuries that result from ECT are not a matter of conjecture; they can be detected on electroencephalograms, recordings of the brain's electrical activity.34 Furthermore, ECT-induced brain damage has been well researched for over six decades, beginning with animal studies performed in the 1940s and 50s. As the title of an article in Nature states, "ECT damage is easy to find if you look for it."35 Notes ECT critic Dr. Peter Breggin, the early research should have been enough to end the controversy.36 Interestingly, ECT's injurious effects have been researched by the modality's biggest supporters. For example, Dr. Edward Coffey, head of the ECT Department at Duke Medical Center, studied MRI scans of 35 patients before and after treatment and found that eight of them experienced demonstrable anatomic brain pathologies after one shock.37 Weinberger, another shock proponent, compared brain scans of shocked and non-shocked schizophrenics and found brain shrinkage to be significantly more common in the former group, even after one treatment.38 Several studies confirm Weinberger's findings.39 40 41

In addition to the inevitable brain damage from shock itself, the "improvements" that have been made to ECT over the past 40 years pose added risks. Although proponents tell the public that the "new and improved" ECT is safer than ever, in private they will admit otherwise. In his ECT training seminar, Dr. Coffey tells his students that while the anesthetic now given reduces the fear and panic that are associated with the treatment,

there is a disadvantage in that anesthetic elevates the seizure threshold.42 What this means is that there is now a need for more electricity to the brain in order to create a seizure. Moreover, anesthesia itself always poses a risk to life. Muscle paralyzers, given to prevent bone fractures, make independent breathing impossible, which can result in prolonged failure to breathe; cardiac arrest; and, as the patient is unable to express himself in a paralyzed state, the possibility of an intensified experience of horror.43

In the early days doctors openly acknowledged that ECT caused brain damage. In fact, damage to the brain was believed to be responsible for its "healing mechanism." This warped concept is implied in such statements as: "...adjustment is obtained more easily in a primitive vegetative existence than in a highly developed personality. Imbecility replaces insanity," and "Because prefrontal lobotomy improves the mentally ill by destruction, the improvement obtained by all the shock therapies must also involve some destructive processes."44 While today's psychiatrists freely admit to their peers that ECT causes brain damage, they hide this reality from the public.

## Memory and Cognitive Losses

What is the sense of ruining my head and erasing my memory, which is my capital, and putting me out of business? It was a brilliant cure but we lost the patient." - Ernest Hemingway, Papa Hemingway45

In 1998, a Scottish woman, Ms. Lizzie Merrie, won her lawsuit against the hospital that erased her memory with electroshock. "I found it almost impossible to remember anything that happened prior to the ECT treatment," reported Ms. Merrie. "My memory for years after treatment is blank, too," she added.46

According to the American Psychological Association, this is a rare event. "Perhaps 1 in 200" people have any memory loss, their fact sheet states, and this loss is trivial and temporary. Yet when pressed about that ratio's validity, Harold Sackeim, Chief of Biological Psychiatry at the New York Psychiatric Institute and a member of the APA's Shock Therapy Task Force, will admit that the 1 in 200 figure is not scientifically based but "impressionistic." In other words, the numbers are made up. Psychiatrist Max Fink, the man most responsible for ECT's comeback in the 1980s, originally came up with the figure, which, Sackheim adds, will probably be deleted from future information handouts.47

Memory loss is the most common complaint of ECT patients. It can involve losing memories of events prior to treatment, after treatment, or both. Just how many people are affected by amnesia was documented in California, where, in 1990, the reported incidence of memory loss was 82 percent and in 1994 jumped to just about 100 percent.48 The mechanism of this amnesia is simple to understand: Memories are stored in brain cells, and the destruction of these cells removes the places where memories dwell.

The scientific literature is replete with research confirming memory damage from ECT as the rule rather than the exception. For example, in Freeman and Kendell's 1986 study, 74 percent of patients mentioned "memory impairment" as a continuing problem, and "a striking 30 percent felt that their memory had been permanently affected." The authors mentioned hat these symptoms were probably under–reported because the patients were interviewed by the same doctors who treated them.49 An interesting note: The 1990 APA Task Force cites Freeman and Kendell – these same authors – as indicating, "a small minority of patients, however, report persistent deficits."

Even studies by ECT advocates report memory impairment resulting from the procedure. Harold Sackeim indicated in his 1992 text, Cognitive Disorders: Pathophysiology and Treatment, that "...disordered thinking, particularly amnesia, can be long-lasting after shock."50 Larry Squire, a neuroscientist at the University of California at San Diego, who publicly proclaims ECT to affect memory only for up to six months before and after treatment, has seen longer effects in several of his studies, including one instance documenting a 30-year loss.51

In addition to the memory loss that can occur after ECT, there is the problem of cognitive deficits, some of which can be subtle and difficult to measure, particularly if doctors aren't looking for them. One ECT critic, Daniel B. Fisher, a psychiatrist near Boston who never recommends electroshock because of the unpredictable nature of its side effects, says that although a person's ability to perform routine tasks might return, he or she could lose special skills. As an example, he cites a woman, who once finished with her treatment series, was able to cope with everyday life but was no longer able to play piano.52

This leads us to the plight of some of those in our society with the most artistic temperaments. These are people who contribute greatly to our culture, but whose sensitivity can open them up to deep sadness, making them prime candidates for ECT. They then become vulnerable to losing those very gifts that make up who they are

and how they earn their livelihood. One of the most famous examples of this is Ernest Hemingway, who, after beginning his second course of shock treatments, said to a visitor, "What these shock doctors don't know is about writers and such things as remorse and contrition and what they do to them. What is the sense of ruining my head and erasing my memory, which is my capital, and putting me out of business? It was a brilliant cure but we lost the patient." Shortly thereafter, Hemingway killed himself.

As a result of memory loss, learning and work situations requiring any degree of intellectual ability can become impossible. In her 1995 testimony to legislators in support of an electroshock ban, Margaret Nunley related how being shocked as a young teenager in 1956 resulted in life-long problems, including the inability to retain information and keep a good job: "I have difficulty reading, and spelling, and remembering words. Despite the fact I have a degree in sociology...I have been unable to hold a job in that field because of my disabilities. It took me 11 years to graduate from college because of the difficulties from the trauma..."53 Another letter written to the FDA states: "In addition to destruction of entire blocks of pre-ECT memories, I have continued to have considerable difficulty in memory with regard to academic pursuits...Currently, I am finding it extremely embarrassing and hurtful when fellow classmates...refer to my struggles in grasping my study materials thusly: 'You are an air brain!' How can I explain that my struggles are due to ECT?"54

It is not uncommon for a sense of terror to accompany the experience of memory loss, as a 48-year-old woman explains: "I came home from the office after that first day feeling panicky. I didn't know where to turn. I was terrified. All my beloved knowledge, everything I had learned in my field during 20 years or more was gone. I'd lost the body of knowledge that constituted my professional skill...I'd lost my experience, my knowing. But it was worse than that. I felt I'd lost myself."55

To reduce memory loss, some psychiatrists recommend unilateral treatment, where one electrode is placed on a temple and another above the back of the neck on the same side of the head. This modification is not often used, however, as most practitioners feel bilateral ECT, in which electrodes are placed on both of the subject's temples, is more effective. Notes one proponent, "My thought about unilateral stimulation is that it fails to cure. I think this failure to cure is in direct proportion to the avoidance of memory loss."56

Additional Complications

"Asked if the fatal heart failure could have resulted from the shock therapy, Dr. Cadden replied, 'Yes, it could have caused dysrhythmia.' Mr. Franco had no history of heart problems and an autopsy revealed his heart was normal." – Jim Kelly, Sunday Times of Western Australia57

Cardiovascular complications arising out of ECT are commonly seen in scientific literature. For instance, the Journal of Clinical Psychiatry reported that 28 percent of a group of 42 patients undergoing ECT suffered cardiovascular problems following treatment. Of the patients who already had a history or indication of cardiac disease, 70 percent developed cardiac complications.58 The Journal of Humanistic Psychology reported on a 57-year-old man who died of heart rupture after receiving several shock treatments.59 From that same article: "Physicians from Tulane University Medical School reported on a 69-year-old woman who developed brain hemorrhaging during ECT. She was also left with epilepsy afterward. This was, as expected, associated with further deterioration in her mental status from her baseline depression. They conclude that the fragile vessels of the elderly may make some patients a particularly high risk for ECT."

Inducing a grand mal seizure can also result in epilepsy or spontaneous seizures afterwards. According to a 1983 report in Neurology, the incidence of new seizures is five times greater than the occurrence in the general population among people who have never received shock.60 Other reports have found seizure activity to be high immediately following ECT, even if people didn't have actual breakthrough seizures. In other words, while physical convulsing was not necessarily present, brain wave tests were abnormal, revealing spots of seizure

## activity.61 62

Another problematic finding is a possible ECT connection to breast cancer. An association between the two was made in a 1996 study published in the American Journal of Psychiatry, which concluded that chronically medicated female psychiatric patients had a rate of breast cancer three-and-a-half times higher than that for patients at a general hospital and nine-and-a-half times greater than in the general population. Identified among the risk factors for developing and accelerating breast cancer were increased levels of prolactin, a pituitary hormone affecting the mammary glands that increases with certain psychiatric medications and ECT.63

## A Danger for the Old

"The elderly are the people who can least stand [shock]. This is gross mistreatment on a national scale." - Nathaniel Lehrman, former Clinical Director of Kingsboro State Mental Hospital in NY64

A woman in her 70s copes with recurring bouts of depression after the death of her beloved husband. She consults a psychiatrist who tells her all she needs to bring her out of the dark is ECT. What he fails to consider is that his patient has a weak heart, and the consent form she signs mentions nothing of this risk. The woman allows herself to undergo treatment and, days later, dies.

This particular scenario is made up, but variations on it happen all too frequently. Consider that half of the 100,000 Americans being shocked each year are senior citizens. Now consider records from Texas, the only state required to track complications within two weeks of ECT administration. These records document a death rate from ECT of 1 in 200 recipients of the treatment. Statistics also reveal that the typical candidate for ECT is a depressed middle– or upper–middle–class woman in her 70s who checks herself into a private hospital. The targeted population has shifted since the 1950s and 60s, when schizophrenic men in their 40s were the primary group subjected to ECT, and the reason is economics. Insurance no longer supports long hospital stays, but Medicare, the government's medical insurance program for people 65 and older, will generously reimburse psychiatrist who administer ECT. This incentive is apparent once again in Texas records, which shows 65-year-olds receiving 360 percent more shock therapy than 64-year-olds.65

Psychiatrists will say that shock therapy is safer than medicines for treating geriatric depression, a claim contradicted by research. In one investigation of 34 people over the age of 85 who were subjected to shock, the Mayo Clinic determined that 79 percent of the patients suffered complications during treatment, such as confusion and delirium, high blood pressure, serious heart arrhythmias that necessitated immediate treatment, and EKG changes. Since only short–term effects were noted, problems that could have arisen months later, such as the development of seizures, or even death, were not even counted.66 In another study, ECT advocates Coffey and Figiel found that 11 percent of elderly patients given ECT for depression remained delirious in the 48 hours between

shock sessions due to the shock itself. In addition, MRI scans showed new abnormalities in the brains of 90 percent of these patients.67

Doctors who consider shock therapy safe and effective deny that ECT plays a role in diminished health and early death; instead they blame age-related health problems. Psychiatrist Richard Abrams, for instance, has said that even if a patient had a heart attack minutes after treatment, "it may very well not be ECT-related."68 And the memory loss and brain damage so commonly associated with ECT can easily be passed off as signs of the aging process, making ECT almost malpractice-free. But again, the research tells the real story. One has only to look at the Winter 2000 edition of the Journal of Humanistic Psychology, in which the longevity of ECT patients and controls was compared. The study found survival rates of ECT patients to be 73 percent at one year, 54 percent at two years, and 51 percent at three years. Control subjects - those who were depressed but who did not receive ECT - lived significantly longer: The respective figures were 96, 90, and 75 percent.69

#### But Does it Work?

"[Shock] would be no different than if you were troubled about something in your life, and you got into a car accident and had a concussion." - Psychiatrist Dr. Lee Coleman70

Psychiatrists hail electroshock as the best method for curing affective disorders and stopping suicides. One of its most zealous proponents, Dr. Max Fink, a Professor of Psychiatry at the State University of New York at Stony Brook and the editor–in–chief of Convulsive Therapy, goes so far as to proclaim ECT "God's gift to man" and has stated that "[it should be given to] all patients whose condition is severe enough to require hospitalization."71 72 A closer look, however, casts doubt on psychiatry's enthusiasm. To begin, one needs to ask what psychiatrists actually mean when they call electroshock effective. For how long do patients show improvement from depression? What do studies conclude about ECT and suicide prevention? And what do psychiatrists actually consider patient improvement?

What an ECT fact sheet fails to tell patients is that the improvements are temporary. Studies have never concluded that patients remain depression-free for longer than a month.73 Initially, ECT recipients score higher on the Hamilton Depression Scale, a test used to measure depression, but weeks later their scores drop again. This is why

psychiatrists recommend follow-up treatments with antidepressants or more electroshock every few weeks. Maintenance with antidepressants, however, does not guarantee success, according to one study published in the New England Journal of Medicine. The study reported a 59-percent return to depression two months following ECT.74

How doctors can justify ECT as effective is explained by outspoken critic and former victim Leonard Roy Frank. Frank says that psychiatry's underlying assumption is that affective disorders are usually chronic and irreversible. "Once a depressive, always a depressive" is their core belief. That viewpoint justifies the use of any intervention that helps somewhat. When patients regress, as they are sure to do, a booster shock is viewed as a necessary part of their ongoing treatment.75 Perhaps this is why Harold Sackeim, the number–one advocate of electroshock in the United States, boasted on a 60 Minutes segment that ECT was one of the most effective treatments available, even though his own research, published just weeks earlier in the Journal of the American Medical Association, concluded that in six months time, patients who had undergone ECT had a 100–percent relapse rate.76

An important argument for ECT is that it prevents suicide, but no evidence supports this claim. On the contrary, evidence exists to refute it. For instance, a large New York-based study found suicide rates among depressed, shocked subjects to be slightly higher than rates among depressed, non-shocked controls a year later. A five-year follow-up found suicide rates to be equal for both groups.77 In a University of Iowa study, over a thousand depressed patients were categorized according to whether they received shock, low or high doses of an antidepressant, or no treatment at all. Years later, it was discovered that all groups had similar suicide rates. The authors concluded, "...active biological treatments, such as ECT, may not be deemed as 'lifesaving' now as in the past."78

Whether ECT is ever effective depends on your definition of the term. "What shock does is throw a blanket over people's problems," says a report for the National Heal Injury Foundation. "It would be no different than if you were troubled about something in your life, and you got into a car accident and had a concussion. For a while you wouldn't worry about what was bothering you because you would be so disoriented. But in a few weeks when the shock wears off, your problems come back."79 Psychiatrist Peter Breggin's "brain-disabling hypothesis" postulates that behavior changes occurring after shock are misinterpreted as improvement. Actually, the amnesia, denial, euphoria, apathy,

helplessness, and submissiveness that produce forgetfulness and compliance are symptoms of psychiatrogenic (psychiatrist-induced) brain damage, not recovery.80

## **Money Matters**

"We're looking for more bang for the buck in health care today." - Joel Holiner, Dallas, Texas, shock psychiatrist81

Electroconvulsive therapy is to psychiatry what open-heart surgery and hysterectomy are to other branches of medicine – a lucrative income booster. Charges of several hundreds of dollars per treatment add up quickly, so that physicians shocking patients three times a week, for instance, can increase their salary by over \$27,000 a year,82 and more ambitious doctors may receive a \$200,000 bonus.83 With the electroshock industry grossing two to three billion dollars a year, and psychiatric groups lobbying for relaxed restrictions, doctors have ample opportunity for financial gain.84

Since most insurance policies permit month-long hospital stays, a course of ECT may be begun right away. Or it may start a month later when Major Medical insurance kicks in for "major" treatment protocols, of which ECT is one. This second option is the best deal for private psychiatric facilities (where the bulk of ECT takes place), as beds remain filled longer for a charge of several thousand dollars per patient. Afterwards, insurance will reimburse patients for outpatient follow-up procedures, in which people are drugged, shocked, wheeled into the recovery room while in a coma, and sent home in a stupor the very same day. The importance of insurance in influencing who gets treatment was noted by one psychiatrist, who stated, "Finding that the patient has insurance seemed like the most common indication for giving electroshock." 85

Financial incentives may also influence electroshock's experts and policy makers, although psychiatrist Richard Abrams, author of the definitive text Electroconvulsive Therapy, would disagree. Abrams is a co-owner of Somatics, a large shock machine company whose annual sales to hospitals around the world bring in a yearly income that about equals a second psychiatry practice – over \$100,000. Abrams, a prominent physician who has written dozens of articles on ECT and testified numerous times on behalf of doctors or hospitals sued by former electroshock patients, sees no conflict of interest between his profitable ownership and his role as a so-called objective expert. Yet he has never willing disclosed his business association to the medical and scientific community or to the public.

Another leading expert, Max Fink, a professor of psychiatry whose enthusiasm helped revive ECT in the 1980s, has made videos promoting the treatment that are geared toward patients, their families, and hospital personnel. Fink sold exclusive rights to his videotape to Somatics for \$18,000, and he receives a percentage of the royalties for each sale. Fink was a member of the 1990 ECT Task Force, a group that created treatment guidelines.

The ethics of conflicting interests is discussed in Sandra Boodman's Washington Post article "Shock Therapy...It's Back." Boodman quotes Arthur Caplan, Director of the Center for Bioethics at the University of Pennsylvania's School of Medicine, as asking, "...do patients get adequate full disclosure of options, or are you skewing how you present the facts because you have a financial stake in the treatment and you personally profit from it every time it's used?"86

Saying no to a lucrative opportunity is not easy for some, but anesthesiologist Michael Chavin of Baytown, Texas, decided, after wrestling with his conscience, that he could no longer participate in a procedure that was harming the elderly. "As an anesthesiologist, what I do for three to five minutes can have serious consequences later," Chavin concluded.87 In 1993, after having taken part in 3000 shock sessions, Chavin quit his hospital position as Chief of Anesthesiology at Baycoast Medical Center after discovering that "Electroshock is done by psychiatrists who give it for a living and therefore have a financial incentive in saying that it is harmless."88 Quitting this position lessened his earning potential by \$75,000, but he felt that he could no longer accept "dirty money." Now an outspoken critic of ECT, Chavin tells people that psychiatrists who administer electroshock for a living, "...cannot bring themselves to admit any harm from ECT unless the patient gets electrocuted to death on the table while being videotaped and observed by a United Nations task force."89 It should be noted that Baycoast Medical Center stopped shocking patients shortly after Chavin's departure when one of their electroshock casualties died from respiratory complications.90

## It Could Happen to You

"Getting locked up is easy, and once a prisoner of the system, all sorts of things can happen to a person. The profession of psychiatry is out of control, and people need to look and see what's happening." - Ted Chabasinski, former ECT patient91

You might not think so, but everyone is a candidate for ECT. Being human, we all experience problems. This is especially true in today's increasingly complex, troubled world for people at every stage of life. Consider these scenarios:

An eight-year-old child returns from camp a different person—withdrawn, worried, and hard on herself. Her concerned parents consult a child psychologist.

A college student under inordinate pressure to excel in school begins arguing with her mother, who believes her daughter is behaving irrationally. The mother calls a doctor who, in turn, recommends a psychiatrist. He thinks in-patient care is in order.

An elderly person grieving over the loss of beloved family members and close friends stops eating and talking. The daughter calls the family doctor, who believes psychiatric intervention is needed.

These are just a few of the many scenarios that could result in ECT. Once a person confides in a psychiatrist, instead of working through difficulties with compassionate talking, and looking at all the positive options that can arise even from a crisis, psychiatrists working within the current medical model often resort to a drug or some form of institutional care where ECT is almost always right around the corner.

We tend to view doctors as omniscient. They know what's best for us, we believe, and have our interests at heart. When doctors recommend ECT, we may need a little persuading, but their mis-educational video assures us that risks are minimal and benefits great. Feeling needy, perhaps even desperate at this point due to the iatrogenic effect of drugs that leave us agitated, we blindly comply.

Once we give our consent, it becomes difficult – and often impossible – to change our minds. Protesting the procedure, in fact, could very well result in more shocks. So reports an article in a recent issue of the Journal of Risk and Safety in Medicine: "Doctors frequently respond to complaints about ECT treatment by deciding that he patient is in need of more treatment. Increased exposure to the brain–damaging effects of ECT can almost always be relied on to eventually put an end to the patient's protests."92

The fact is that anyone speaking to a psychiatrist is at risk of being perceived as psychopathological. All a psychiatrist need do is pick one or more conditions that seem to fit from the psychiatric "bible," the DSM manual, where hundreds of so-called "diagnosable

conditions" are listed - everything from insomnia, worry, and caffeinism, to being shy. Very few of the "disorders" are organic; the majority is socially based.

In its rush to diagnose and treat, what psychiatry forgets is that mental symptoms can be caused by poor physical health. An example of misdiagnosis is the case of Ruth Reed Price, whose nervous breakdown resulted in a diagnosis of schizophrenia when the real problem, discovered later, was a thyroid imbalance. In her 1995 testimony on banning electric shock in Austin, Texas, Price talked of the damage to her memory and nervous system that made returning to work a nightmare. "Instead of trying to really discover what was wrong," she says, "the Austin State Hospital staff made a wrong assumption and proceeded to damage my brain and impair my memory with their violent electric shock therapy."

# Survivors Speak

"I was going to school, writing, starting a career. All that's gone...About five years of my life are completely erased." - Linda

Being a recipient of ECT is stigmatizing. Many people remember Thomas Eagleton, the Missouri senator whose name was removed from the Democratic ticket as a vice presidential candidate when it was discovered that he had had shock therapy. The stigma, combined with the fact that electroshock survivors are generally dismissed as not knowing what is good for them, means that their concerns are not often heard or taken seriously.

An example of this dismissal of patients' perceptions can be found in the website of ardent ECT advocate Dr. Max Fink. He's the psychiatrist who makes the promotional videos, and his pro-electroshock website – HYPERLINK "http://www.electroshock.org" www.electroshock.org – is a chilling example of how good PR can work to minimize and distort the true nature of a phenomenon. Fink's website purports to be objective, and one of the ways it does this is by listing the names of other sites, both pro– and anti–ECT. But here is the paragraph included just before his listing of "Anti–Psychiatry Web–sites": "FAIR WARNING: Individuals, many of whom have suffered mental illness and believe that they have been damaged by their treatment, maintain web–sites that are inaccurate, emotional, filled with invective, and with ad hominem attacks on psychiatric practitioners. The attitudes are similar to those of members of the Church of Scientology. None describe the present practice of psychiatry accurately."

Notice the innuendo, the condescension, the generalization, and the ad hominem tone within this paragraph itself. An underlying assumption seems to be that if you've been treated for mental illness, you're not a credible person. I differ with this. What's more, I believe that it is only by listening to the accounts of people who have actually undergone a treatment that we can fully understand its impact. That is why I've interviewed many ECT survivors, and why I am concluding with excerpts from what some of them had to say:

#### Lenore

"I received shock therapy at Iowa City State Mental Institution 28 years ago. I wasn't depressed; I wasn't suicidal...They were shocking everyone on the ward—the young, the really old, everyone. I don't remember anybody telling me what was going on or anything. All they said was that they were going to give me some treatments. Then I found out what true depression was. What were they shocking us for? I don't know. Ward control? To keep everyone nice and passive?

"I don't know very much about it because it kind of wipes you out. What it does is replace all your childhood memories with this horrible memory of just waking up not knowing who you are. So, I don't know what kind of a person I would be if they hadn't done that to me. I had to learn how to read and write and talk and think all over again. I couldn't write, my hands shook so terribly, and I couldn't talk or think because I didn't have anything to think about or say with nothing in my head. I would just look at homes when they would take us bowling. We'd be on the bus, and I would be looking at homes rolling by, just wishing with all my heart that one of those homes was mine and that I wasn't sitting in this bus. Every single home I saw I wished was mine. It was really, really horrible. I had no memory of my parents or of anything. I didn't even know what my name was. They completely wiped out my memories. At age 18, they completely eliminated my entire life...

"It took a long time for my memories to return. They didn't all come back because I don't remember a lot of events leading up to the shock, and I don't remember the experience. Many of my memories returned, but in a different way. It's like a deck of 52 cards, each with a snapshot. There's no connection between the memories, but there are snapshots of houses that we lived in and things that happened...

"People recover from shock therapy in spite of what it has done to them and not because of what it's done...

"I don't believe that depression has to be a brain abnormality. I think that there are lots of reasons for it. Some of them are cultural and some of them are personal. There could be lots of healthy alternatives for dealing with it. If they would come up to a depressed person and say, 'How would you like to go to a farm and ride some horses and take care of these animals for a while? Maybe that will make you feel better.' That could really help. Instead the offer is, 'You're depressed. Why don't we shock you?' Shock should not be one of the alternatives."

#### Linda

"ECT was the most traumatic experience of my life. It caused memory loss and cognitive difficulties. My abstract thinking was severely affected, especially initially, and I had to learn things all over again that I once knew. I felt like I was mentally retarded. It's how I imagine somebody would be after having a stroke. I forgot a lot of things that had happened in my life. I would look at pictures, for example, vacations from many years before. I would see myself in a picture but not remember the vacation...Before a shock treatment, people are told that they will only forget what happened to them a few weeks before and after the treatment. But that wasn't my experience at all.

"I'm a clinical social worker and have worked at a community mental health center. Some of the people I've seen have had ECT torture, just horrible experiences. Psychiatrists obviously do not take their own medicine, as only one treatment would convince them to never go through it again. It certainly was true for me. After the first one I knew that some day I had to do something different to help people because my experience was that of torture. I was amazed that I was still alive. It's not something I would wish on any human being. In my opinion, ECT ought to be banned and looked at by the United Nations in their policies against torture."

#### Don

"The media fails to tell the truth from the survivor's perspective. They don't talk about the permanent memory loss. They keep promoting the psychiatric lies that memory loss is temporary and minor. The truth is that people who have endured at least six or seven shock treatments have permanent memory loss. They can lose memory of months preceding treatment, but more often than not it's years. And the memory is spotty. It's

not surprising that memory loss is generally permanent. Electrodes are often placed over the temporal lobes, and our memories are generally stored in that part of the brain.

"Another thing – many people I've talked with complain that they can't concentrate as well anymore. They can't learn the way they used to. A friend of mine, for example, was voted Best Actress in Canada previous to her shock treatments. After getting between 16 and 18 shocks in Hamilton Psychiatric Hospital in Ontario, her acting career was ruined because she found it almost impossible to remember lines in a play."

## Linda

"Unfortunately, there isn't anything I can recall about my experience with ECT. I don't know any more about having had it or about what happened in the five years before that time than you do. I apparently had 15 sessions, which is pretty routine. I don't know what was happening with me, what was going through my mind, what my emotions were, but whatever it was they called it depression. I have no idea what depression is or what it feels like because I've never experienced it. Of course, I've known a lot of people who have experienced it, and I know it's a horrible thing, but I myself have no idea of what it's like just as I have no idea of what it's like to go through my college graduation or to be accepted by a graduate school or to get an NEA grant for my writing ability, which I did. All these things are wiped out along with whatever was going on in the short period when they said I was depressed. But there were many, many years when I was not depressed at all, when I was living a very full life by all accounts. I was going to school, writing, starting a career. All that's gone, too. About five years of my life are completely erased.

"Imagine the feeling. At first there's incredible grief at your loss because the magnitude of your loss is too much to bear. How could anyone bear it? I mean you got up and lived your life as if it was going to matter, and then all of a sudden everything you did for those five years doesn't matter. The weight of what you've lost is overwhelming. You've got to grieve, and you've got to be very angry."

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1 Electroshock as Head Injury: Report for the National Head Foundation, Sept. 1991.

2Black D., Winoker, G., et al., "Does Treatment Influence Mortality in Depressives?" Annals of Clinical Psychiatry, 1989; 1:165–173.

3Cauchon, Dennis, "Stunningly quick results often fade just as fast," USA Today, HYPERLINK "http://web.usatoday.com/life/health/lhs 188.htm" http://web.usatoday.com/life/health/lhs 188.htm.

4Boodman, Sandra G., "Shock Therapy...It's Back," The Washington Post, Sept. 24, 1996, p. Z14.

5Lambourn J., and Gill, D., "A Controlled Comparison of Simulated and Real ECT," British Journal of Psychiatry, 1978; 133.514-519.

6Black D., Winokur G., et al., "Does treatment influence mortality in depressives?" Annals of Clinical Psychiatry, 1989; 1: 165-173.

7Cauchon, Dennis, "Stunningly quick results often fade just as fast," USA Today, HYPERLINK "http://www.usatoday.com/life/health/1hs 188.htm" http://www.usatoday.com/life/health/1hs 188.htm.

8Friedberg, J., Shock Treatment is Not Good for Your Brain, Glide Publications, San Francisco, 1976.

9Weisberg, L., Elliot, D., and Mielke, D., "Intracerebral hemorrhage following electroconvulsive therapy, Neurology, Nov. 1991; Vol. 41, No. 11: 1849.

10Breggin, P., Toxic Psychiatry, New York, St. Martin's Press, 1991, Ch. 9, "Shock treatment is not good for your brain."

11Electroshock as Head Injury: Report for the National Head Injury Foundation, Sept. 1991, pp. 5-11.

12Cauchon, Dennis, "Patients often aren't informed of full danger," USA Today, HYPERLINK "http://web.usatoday.com/life/health/lhs 195.htm" http://web.usatoday.com/life/health/lhs 195.htm.

13Electroshock as Head Injury, op. cit. pp. 2-3.

14Boodman, op cit.

15Cauchon, Dennis, "ECT: History of shock," USA Today, Dec. 7, 1995.

16Myerson, Abraham, in discussion of Franklin G. Ebaugh, et al., "Fatalities following electric convulsive therapy: a report of two cases with autopsy findings," Trans. Ameri. Neruol. Assoc. 68 (June 1942): p.39, as given in Wiseman, Bruce, Psychiatry: The Ultimate Betrayal, Los Angeles, Freedom Publishing, 1995, p.117, footnote 11.

17Frank, Leonard Roy, "Electroshock: Death, Brain Damage, Memory Loss, and Brainwashing," The Journal of Mind and Behavior, Summer and Autumn 1990, 11:3&4, p. 492.

18Cerletti, U., "Old and new information about electroshock," American Journal of Psychiatry, 107, Aug. 1950, 93–94, as given in Bruce Wiseman, Psychiatry: The Ultimate Betrayal, Los Angeles, Freedom Publishing, 1995, p. 118, footnote 12.

19"Creating Harm: The History of Electroshock," HYPERLINK
"http://www.cchr.org/ect/eng/page04.htm" http://www.cchr.org/ect/eng/page04.htm.

20Gary Null Interview with Moira Dolan, May 1,2001.

21Abrams, R.,(1988b). Interview with Lothar Kalinowsky, M.D., Convulsive Therapy, 4, p. 30, as reported in Frank, Leonard Roy, "Electroshock: Death, Brain Damage...," op. cit., p. 492.

22Ayd, F.J., Jr. (1963). Guest editorial: Ugo Cerletti, M.D., 1877–1963 Psychosomatics, 4, p. A7, as reported in Frank, Leonard Roy, "Electroshock: Death, Brain Damage...," op. cit., p. 493.

23Kesey, Ken, One Flew Over the Cuckoo's Nest, Viking Press, New York, 1962. p. 62.

24Boodman, op. cit.

25Kesey, Ken, op. cit, p. 242.

26Boodman, op. cit.

27Boodman, op. cit.

28Gary Null interview with Moira Dolan, May 1, 2001.

29lbid.

30Spikel, L., "The shocking truth, part 4: Forced electroconvulsive therapy isn't just the stuff of movies," as reported by Gary Null, May 1, 2001.

31 Plath, Sylvia, The Bell Jar, Harper & Row, New York, 1971.

32Electroshock as Head Injury: Report for the National Head Injury Foundation, Sept. 1991.

33Samant, Sydney, Clinical Psychiatry News, Mar. 1983.

34"Brain damage from electroshock - perpetuating cruelty, Psychiatry, inflicting pain," CCH, HYPERLINK "http://www.cchr.org/ect/end/page08.htm" http://www.cchr.org/ect/end/page08.htm.

35Sterling, P., "ECT damage is easy to find if you look for it," Nature, 2000 Jan. 20; 403(6767):242.

36Breggin, Peter, R., "Electroshock: scientific, ethical, and political issues," International Journal of Risk & Safety in Medicine, 11 (1998) 5-40.

37Coffey, E., et al., "Brain anatomic effects of ECT," Arch. Gen. Psych., 1991; 48:1013-21.

38Weinberger, et al., "Structural abnormalities in the cerebral cortex of chronic schizophrenic patients," Arch. Gen. Psych., 1979; 36:935–9.

39Calloway, et al., "ECT and cerebral atrophy: a CT study," Acta Psych. Scand., 1981:64:442–5.

40Andreasen et al, "MRI of the brain in schizophrenia," Arch Gen Psych, 1990; 47:35-41.

41Dolan, R.J., et al, "The cerebral appearance in depressed subjects," Psychol Med, 1986; 16:775–9.

42Electroshock as Brain Injury: Report for the Head Injury Foundation, Sept. 1991.

43"Brain damage from electric shock," HYPERLINK "http://www.cchr.org/ect/eng/page08.htm" http://www.cchr.org/ect/eng/page08.htm.

44Gordon, H.L. (1948). Fifty shock therapy theories. Military Surgeon, 103, 399-0401 as cited in Frank, L.R. Electroshock:Brain.

\*\*\*Page 40 with footnotes 45-48 missing\*\*\*

49Freeman, C., and Kendell, R., "Patients' experience of and attitudes to electroconvulsive therapy," Annals of the New York Academy of Sciences, 462 (1986), 341-52.

50Appendix to John Breeding, Ph.D. "Electroshock." Based on an article published in the J. of Humanistic Psychology, Winter 2000, Vol. 40:1, 65–79, citing Sackeim in Cognitive Disorders: Pathophysiology and Treatment, edited by Moos, et al., 1992.

51Squire, L. (1973),"A thirty year retrograde amnesia following electroconvulsive therapy in depressed patients. Presented at the third annual meeting of the Society for Neuroscience, San Diego, CA. Squire, L., 1974, "Amnesia for remote events following electroconvulsive therapy," Behavioral Biology, 12 (1), 119–25. Squire, L., and Slater, P. 1983, "Electroconvulsive therapy and complaints of memory dysfunction: a prospective three-year follow-up study," British J. of Psychiatry, 142, 1–8.

52Boodman, S.G., "Shock Therapy...it's back," op. cit.

53http://www.banshock.org/nunley/htm.

54Winter, F.M., Letter to the Food and Drug Administration, May 23, 1988, as cited in Electroshock as Head Injury, op. cit.

55Roueche, B., (1974, September 9). "As empty as Eve." The New Yorker, Sept. 9, 1974, 95–6, as cited in Frank, L.R., "Electroshock: Death, Brain Damage, Memory Loss, and Brainwashing," op. cit., 503.

56Thigpen, Ch.H., 1976, Letter, Convulsive Therapy Bulletin, 40, as cited in Frank L.R., op. cit., 505.

57Kelly, Jim, "Breaking News: Shock Death Link," Sunday Times newspaper of Western Australia, 1/21/01, HYPERLINK "http://www.banshock.org" http://www.banshock.org, 5/14/01.

58Joan P. Gerring, M.D. and Helen M. Shields, M.d., "The identification and management of patients with a high risk for cardiac arrhythmias during modified ECT," J Clin Psychiatry, 43–4.

59Appendix to John Breeding, Ph.D., Electroshock. Based on an article published in the Journal of Humanistic Psychology, Winter 2000, Vol. 40, No. 1, pp. 65–79 citing Ali, P.B.

and Tidmarsh, M.D. Cardiac Rupture During Electroconvulsive Therapy Anesthesia 1997; 52:884–895.

60Devinsky and Duchowny, op. cit.

61 Varma, N.K. et al, "Nonconvulsive status epilepticus following ECT," Neurology, 1992: 42:2263-64.

62Weiner, RD, "Prolonged confusional states and EEG seizure activity following ECT and lithium use," Am J Psych, 1980: 137:1452-3.

63Uriel Halbreich, M.D., Jianhua Shen, M.D. and Victor Panara, M.D., "Are chronic psychiatric patients at increased risk for developing breast cancer?" American Journal of Psychiatry, 153, no. 4 (April 1996): 559–60.

64Cauchon, Dennis, "Patients often aren't informed of full danger," USA Today, Dec. 6, 1995.

65Ibid.

66Tomac, T., and Rummans, T. "Safety and efficacy of electroconvulsive therapy in patients over age 85," Am. J. Geriatr. Psy., 1997; 5:126-30.

67Figiel, Coffey, et al., "Brain MRI findings in ECT-induced delirium," J of Neuropsych and Clin Sci 1990: 2:53-8.

68Ibid.

69Appenix to John Breeding, Ph.D. Electroshock. Based on an article published in the Journal of Humanistic Psychology, Winter 2000, Vol. 40, No. 1, pp. 65–79, citing Kroessler, D. and Fogel, B. "Electroconvulsive therapy for major depression in the oldest old," Am J Geriatr Psych 1993; 1:1:30–37.

70L. Coleman, quoted in Bielski, 1990. Cited in "Electroshock as head injury," Report for the National Head Injury Foundation, September 1991.

71 Boodman, op. cit.

72Edelson, E. "ECT elicits controversy—and results. Houston Chronicle, December 28, 1988, p. 3, as reported in "Electroshock: Death, Brain Damage, Memory Loss, and Brainwashing, op. cit., p. 493.

73Opton, E.M., Jr. (1985, June 4). Letter to the members of the panel National Institute of Health Consensus Development Conference on Electroconvulsive Therapy, as cited in Frank, L.R., "Electroshock: Death, Brain Damage, Memory Loss, and Brainwashing," op. cit., p. 497.

74Sandra G. Boodman, "Shock therapy...It's Back," op. cit.

75L.R. Frank, "Electroshock: Death..." op. cit., p. 497.

76Gary Null interview with Moira Dolan, 5/1/01.

77Babigan, H., et al., "Epidemiologic considerations in ETC," Arch Gen Psych, 1984; 41:246–53.

78Black et al., "Does treatment influence morality in depressives?" Ann Clin Psych 1989; 1:165-73.

79Coleman, quoted in Bielski, 1990. Cited in "Electroshock as head injury," Report for the National Head Injury Foundation, September, 1991.

80Frank, L.R., op. cit., p. 496.

81 Cauchon, Dennis, "Patients often aren't informed of full danger," op. cit.

82lbid.

83Leonard Roy Frank, "Electroshock: Death, Brain Damage, Memory Loss, and Brainwashing," op. cit., p. 494.

84Leonard Roy Frank, "Electroshock: Death, Brain Damage, Memory Loss, and Brainwashing," op. cit., p. 494.

85Viscott, D. (1972). The Making of a Psychiatrist. Greenwich, Connecticut: Faucett. In Leonard Roy Frank, "Electroshock: Death..." op. cit., p. 494.

86Boodman, Sandra G., "Shock therapy...It's Back," op. cit.

87Cauchon, D., "Patients often aren't informed of full danger," op. cit.

88lbid.

89lbid.

90lbid.

91 Gary Null interview with Ted Chabasinski, 5/18/01.

92Breggin, P.R., "Electroshock: scientific, ethical, and political issues," International Journal of Risk & Safety in Medicine, 11 (1998) 5-40; IOS Press.

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ELECTROCONVULSIVE THERAPY: A SECOND OPINION

By Gary Null

If you thought shock treatment was a thing of the past, you're wrong. ECT is making a comeback, with its supporters saying it helps depression and prevents suicide. There are three things you should know, though: It doesn't help depression. It doesn't prevent suicide. And patients coming out of this treatment can have more problems than they did going in – including death.

A grand mal seizure, when muscles contract violently and uncontrollably, is something doctors ordinarily try to prevent. Yet, with shock therapy's dramatic comeback, doctors are intentionally producing this type of seizure as a medical treatment. Shock therapy's advocates, who refer to the procedure as electroconvulsive therapy (ECT) to soften negative associations, proclaim that ECT is safe, painless, and effective. It's the best treatment for deep depression, they say, and it saves lives by preventing suicide. Moreover, they claim, side effects, such as memory loss, are only temporary. The trend appears to be growing, with ECT now being used for a number of psychiatric ailments, including schizophrenia and obsessive-compulsive disorder, and even for some non-psychiatric conditions, such as Parkinson's disease.1 But paralleling the growth of ECT is the growing number of critics of the treatment, both within and outside of the psychiatric establishment. Shock is not just ineffective, the opposition claims, it often leaves recipients in a worsened condition than

before treatment. Depression and suicidal ideation soon return, complicated by ECTinduced brain damage and memory loss. Plus new conditions, such as epilepsy and heart arrhythmias, can develop. Moreover, signing the permission form for this treatment may be signing your life away, as the risk of death during or soon after the procedure is great, far higher than ECT proponents admit, in part due to the targeting of fragile elderly populations. ECT's most ardent challengers, often former patients themselves, wonder how healing professionals could have forgotten their Hippocratic Oath to do no harm. They assert that ECT is a barbaric procedure that must be banned. In considering these diametrically opposed views, the tendency of the average person is to side with established medical authority and disbelieve the critics. After all, this is a supposedly therapeutic approach that's been widely used around the world for three-quarters a century. Well-credentialed doctors are telling us that ECT is the single best therapy for alleviating depression and preventing suicide, and this is at a time when more than 30,000 Americans are taking their lives annually. Reasonableness would have us assume that the issue has been properly researched; the public views doctors as trustworthy, intelligent, and highly knowledgeable, if not god-like. On the other hand, critics of ETC are often those who have themselves been exposed to it, people labeled mentally ill. In our culture a mental patient is considered an irrational person, one not to be trusted. So when patients' rights groups assert that people are being harmed, and in many cases forcibly shocked against their will, the tendency is to disbelieve, to think this can't be happening. It's easy then to be swayed by distinguished doctors from prestigious universities and to dismiss the words of psychiatric patients as paranoid and delusional. One has to look beyond cultural assumptions to get to the reality of the situation. The fact is that over the years ECT has been the subject of numerous well-researched studies, many by ECT proponents themselves. They reveal, in brief, the following:

ECT does not eliminate depression. Studies acknowledge a significantly high relapse rate just four weeks following treatment.2 3 4 5ECT is not a deterrent against suicide.6 7 ECT damages the brain, and can cause permanent memory loss, seizures, and epilepsy.8 9 10 11 Death rates from ECT may be as high as 1 in 200.12 The Food and Drug Administration (FDA) classifies ECT machines as Class III devices. This means they are high risk, unsafe, and pose an unreasonable risk of injury or illness. Furthermore, the benefits of Class III devices have not been shown to outweigh the risks they pose.13 ECT experts in support of the modality have lucrative financial ties to the shock machine industry.One would expect these findings to place this controversial procedure under scrutiny, when, in fact, the

opposite is occurring, with 100,000 Americans receiving treatment annually and with the numbers growing.

**Barbarous Beginnings** 

"When I saw the [first] patient's reaction, I thought to myself: This should be abolished!" - Ugo Cerletti, the originator of shock therapy

Although we tend to celebrate medical advances, the history of medicine is also replete with failure and fraud. Treatments for mental illness have been particularly susceptible to quackery, starting with the notion that evil spirits are to blame for the condition, and that inducing fever or vomiting could drive them out. Another early notion was the idea that insanity and epilepsy could not occupy the same brain at the same time. The practical application of this notion was seen in the treatment of some mental illnesses with huge doses of insulin and other drugs to create seizures. Seemingly remarkable - albeit shortterm - improvements were sometimes noted with this approach.14 Thinking along these lines, an Italian professor of psychiatry, Ugo Cerletti, concluded that using electricity to induce seizures in psychotic inmates could drive out insanity. It's not a fact publicized by today's ECT advocates, but Cerletti, pioneered the procedure after witnessing slaughterhouse operators shock pigs into epileptic fits in order to facilitate the slitting of their throats. His initial experiment in the human realm was with a 39-year-old engineer found wandering in the streets. Because the man was speaking gibberish, he was sent to Cerletti for observation. Cerletti diagnosed him with Schizophrenic Syndrome. Treatment consisted of electrifying the man's temples with a pair of tongs used to stun hogs, after which the fellow "burst into song." 15 As no seizure was induced, Cerletti and his colleagues discussed raising the voltage, an idea to which their subject, who had apparently returned to his senses, now responded, in perfect Italian, "Not another one! It's deadly." Despite his own reservations, Cerletti administered a second, stronger current and caused a seizure.16 17 From these questionable beginnings, ECT was born. In 1938, Italian psychiatrist Lucino Bini helped Cerletti build the first shock machine. Its use induced strong convulsions and caused irreversible brain damage. This led to the use of electric shock to destroy the personality. In 1942, Bini devised a procedure that he named "annihilation therapy." This was nothing less than the repetitive use of ECT, many times a day, to induce a state of severe amnesia, something Bini believed would be useful for treating patients with obsessions, depression, and some types of paranoia. The effect of annihilation therapy has been compared to the state induced following a prefrontal lobotomy.18 One of electroshock's most zealous advocates was German psychiatrist

Lothar B. Kalinowsky, who initiated the technique's use throughout Europe and vigorously promoted it in the U.S. Initially, the American psychiatry rejected the idea that brain damage could foster healing, but it soon changed its mind and embraced the technique. In 1942, one impassioned advocate, Dr. Abraham Myerson, commented: "The reduction of intelligence is an important factor in the curative process...The fact is that some of the very best cures that one gets are in those individuals whom one reduced almost to amentia [mindlessness]."19 Notes Moira Dolan, an Austin, Texas, doctor who advocates a ban on the procedure, "When we look back at the beginnings of electric shock there was truth in advertising [with such labels as] as annihilation therapy and amentia."20 It should also be stated that some of electroshock's pioneers felt sickened by what they initially witnessed. The first time Kalinowsky observed ECT he turned pale, and later said to his wife, "I saw something terrible today – I never want to see it again."21 Cerletti shared similar sentiments at the beginning: "When I saw the patient's reaction, I thought to myself: This ought to be abolished! Ever since, I have looked forward to the time when another treatment would replace electroshock."22

#### Ward Control and Coercion

"The Shock Shop...might be said to do the work of the sleeping pill, the electric chair, and the torture rack. It's a clever little procedure, simple, quick, nearly painless it happens so fast, but no one ever wants another one. Ever." - Ken Kesey, One Flew Over the Cuckoo's Nest23

Once ECT was adopted in the US, abuse of this modality became common. This is not to say that the treatment is not in and of itself an abuse, but from the 1940s to the 70s, shock treatments were often given in psychiatric hospitals not just as treatment, but to quiet or punish patients. Notes one woman I interviewed, of her experience in the early 70s: "I wasn't depressed; I wasn't suicidal...They were shocking everyone on the ward – the young, the really old, everyone...What were they shocking us for?...Ward control?" Medical historian David J. Rothman of Columbia University points out that ECT stands practically alone among medical/surgical interventions in its role as a patient control mechanism used for the benefit of the hospital staff.24 Gross mistreatment on psychiatric wards went largely ignored until the publication of Ken Kesey's best–selling 1962 semi–autobiographical novel (later made into a popular movie and play), One Flew Over the Cuckoo's Nest. The story's hero, a rebellious psychiatric inmate named McMurphy, refused to have his spirit broken by Nurse Rached, a figure of oppressive authority, and his punishments become increasingly worse. To quote one excerpt: "They

gave McMurphy three more [shock] treatments that week. As quick as he started coming out of one, getting the click back in his wink, Miss Rached would arrive back with the doctor and they would ask him if he felt like he was ready to come around and face up to his problem and come back to the ward for a cure."25 Kesey's tale struck a chord with the public and was a major factor - along with published accounts of real-life shock mistreatment, as well as the creation of Thorazine and other antipsychotic drugs - in electroshock's decline.26 By the mid-1970s, ECT was out of fashion. Psychiatry favored drugs because they were inexpensive, widely available, and less of a public concern. Economic factors of the 1980s brought ECT into the limelight once again, particularly insurance policies that refused to pay for lengthy therapies but readily reimbursed short-term hospital procedures like ECT. Since then, electroshock has received glowing endorsements from numerous organizations, including the National Institutes of Health, the National Alliance for the Mentally III, the National Depressive and Manic Depressive Association, and the American Psychological Association. This last organization takes an active role in ECT advocacy. This includes fighting attempts to restrict the procedure, and working to relax current standards so that shock therapy will become an initial, rather than last-resort, treatment for the depressed.27 Has economic incentive resulted in unethical practices in psychiatric hospitals today? Certainly there are many instances when people are coerced into the procedure. It's true that written consent is required, but consent can be coerced. Dr. Moira Dolan, who works for patient advocacy, explains how this happens: "They're put in straightjackets and placed in a padded room where they are told that they will not be able to get out until their next competency hearing in 30 to 60 days unless they sign on the dotted line for electroshock."28 Dolan has also reviewed a malpractice case in which an exclusively Spanish-speaking, illiterate person was asked to sign an English consent form. "That's not truly informed consent," Dolan points out, "but by then they've got you."29 In other words, once you've signed on the dotted line, it's too late to change your mind. Consider the plight of Haitian immigrant Paul Henry Thomas, an inpatient at Pilgrim Psychiatric Education Center on Long Island. Thomas initially signed for the procedure in 1999 but decided after three treatments that he had had enough. Nevertheless, the treatments continued to be given, by force. Legal action on Thomas's behalf proved fruitless when a New York Supreme Court judge ruled that shock could continue. Thomas, like other psychiatric patients, finds himself in a Catch-22 situation in which he is supposedly fit enough to consent to treatment, yet after being given the electroshock designed to help him, he is no longer

considered capable enough to know what is in his best interest.30 Controlled Brain Damage

"...with each flash a great jolt drubbed me till I thought my bones would break and the sap fly out of me like a split plant. I wondered what terrible thing it was that I had done." Sylvia Plath, The Bell Jar31

Isn't today's ECT more humane than the treatment given years ago? In a sense, yes. It's no longer like the early days, when patients jerked as they convulsed and suffered terrible headaches afterwards. The modern version of shock treatment, known as "modified" ECT, gives no evidence of bodily harm thanks to muscle relaxants and general anesthesia given beforehand and headache medication afterwards. The procedure is now as clean and quick as a doctor setting a dial to a patient's age and pressing a button. Vital signs are monitored and supplementary oxygen supplied to protect the brain. Electroshock advocates argue that these precautions make the procedure simple and safe, an assumption that an observer might easily digest, as only the curling of the toes indicates that anything at all has taken place. Although present-day modifications can help in certain ways by reducing a patient's fear and stopping flailing movements that can cause bone fractures, the treatment itself - the zapping of the brain with an electrical current - is unchanged, and inevitably results in brain damage. According to the National Head Injury Foundation, each treatment equals one moderate-to-severe head injury.32 And as a series of shocks are prescribed - eight to fifteen on average and as many as one per month on an indefinite basis - the wounding intensifies. In 1983, Dr. Sydney Samant described what happens in the following way: "As a neurologist and electroencephalographer, I have seen many patients after ECT, and I have no doubt that ECT produces effects identical to those of a head injury. After multiple sessions of ECT, a patient has symptoms identical of those of a retired, punch-drunk boxer...After a few sessions of ECT the symptoms are those of moderate cerebral contusion, and further enthusiastic use of ECT may result in the patient functioning at a subhuman level. Electroconvulsive therapy, in effect, may be defined as a controlled type of brain damage produced by electrical means."33 The fact is that the intent of ECT is to produce a torrential brain storm, a grand mal seizure lasting from 30 seconds to a minute or more. The amount of power needed to so do is enough to set off a barrage of devastating effects. Dr. Peter Sterling, a neurobiology professor at the University of Pennsylvania, outlined the injuries that occur in his testimony before the Standing Committee on Mental Health of the New York State Assembly 1978. Sterling described how convulsions caused by electrical shocks to the brain cause what amount to a

cascade of changes, with many of the brain's natural protections being broken. There's a massive rise in blood pressure, cerebral blood flow regulation breaks down, and so does the blood-brain barrier. Such changes can then lead to alterations in brain chemistry and physiology, as well as gross pathology, such as brain swelling and hemorrhages, which lead to the death of neurons. Such changes, Sterling went on, are also associated with persisting, probably permanent amnesias concerning life experiences. Sterling concluded that at all levels - from changes in blood pressure to losses in memory - there is extreme variability. Losses can, however, be catastrophic after only a few shocks. At times catastrophe can be immediate due to the massive rise in blood pressure that occurs with ECT. It begins when the treatment causes a giant increase in the brain's demand for oxygen. To meet this demand, blood flow to the brain increases by as much as 400 percent, with blood pressure elevating up to 200 percent. This sudden, enormous increase in blood pressure can result in hemorrhaging, the rupturing of blood vessels. In many instances, autopsies of people who have died during or shortly after ECT treatment attribute the death to hemorrhaging. Any attempts to prevent brain damage by giving the patient supplementary oxygen will not only fail but also worsen the scenario, as oxygen only prolongs the seizure, resulting in greater neuron necrosis (death). Destruction of the blood-brain barrier is another problematic consequence of ECT. This defense system has evolved to keep harmful substances way from the brain's vicinity. Once it's compromised, undesirable products, such as drugs and foreign matter, can easily leak out of blood vessels into brain tissue. That, in turn, causes brain swelling to occur. Nerve cells and other tissues become starved for oxygen and die. After the swelling subsides, fluids will have been absorbed, and the brain shrinks, or atrophies. Because brain shrinkage is commonly seen in the elderly, ECT has the effect of accelerating the aging process tremendously. After electroshock, levels of arachidonic acid rise in the brain. This can result in small strokes throughout the organ. The damage can occur randomly, not just where ECT took place, and can cause death. It should be understood that the injuries that result from ECT are not a matter of conjecture; they can be detected on electroencephalograms, recordings of the brain's electrical activity.34 Furthermore, ECTinduced brain damage has been well researched for over six decades, beginning with animal studies performed in the 1940s and 50s. As the title of an article in Nature states, "ECT damage is easy to find if you look for it."35 Notes ECT critic Dr. Peter Breggin, the early research should have been enough to end the controversy.36 Interestingly, ECT's injurious effects have been researched by the modality's biggest supporters. For example,

Dr. Edward Coffey, head of the ECT Department at Duke Medical Center, studied MRI scans of 35 patients before and after treatment and found that eight of them experienced demonstrable anatomic brain pathologies after one shock.37 Weinberger, another shock proponent, compared brain scans of shocked and non-shocked schizophrenics and found brain shrinkage to be significantly more common in the former group, even after one treatment.38 Several studies confirm Weinberger's findings.39 40 41 In addition to the inevitable brain damage from shock itself, the "improvements" that have been made to ECT over the past 40 years pose added risks. Although proponents tell the public that the "new and improved" ECT is safer than ever, in private they will admit otherwise. In his ECT training seminar, Dr. Coffey tells his students that while the anesthetic now given reduces the fear and panic that are associated with the treatment, there is a disadvantage in that anesthetic elevates the seizure threshold.42 What this means is that there is now a need for more electricity to the brain in order to create a seizure. Moreover, anesthesia itself always poses a risk to life. Muscle paralyzers, given to prevent bone fractures, make independent breathing impossible, which can result in prolonged failure to breathe; cardiac arrest; and, as the patient is unable to express himself in a paralyzed state, the possibility of an intensified experience of horror.43 In the early days doctors openly acknowledged that ECT caused brain damage. In fact, damage to the brain was believed to be responsible for its "healing mechanism." This warped concept is implied in such statements as: "...adjustment is obtained more easily in a primitive vegetative existence than in a highly developed personality. Imbecility replaces insanity," and "Because prefrontal lobotomy improves the mentally ill by destruction, the improvement obtained by all the shock therapies must also involve some destructive processes."44 While today's psychiatrists freely admit to their peers that ECT causes brain damage, they hide this reality from the public.

#### Memory and Cognitive Losses

What is the sense of ruining my head and erasing my memory, which is my capital, and putting me out of business? It was a brilliant cure but we lost the patient." - Ernest Hemingway, Papa Hemingway45

In 1998, a Scottish woman, Ms. Lizzie Merrie, won her lawsuit against the hospital that erased her memory with electroshock. "I found it almost impossible to remember anything that happened prior to the ECT treatment," reported Ms. Merrie. "My memory for years after treatment is blank, too," she added.46 According to the American Psychological Association, this is a rare event. "Perhaps 1 in 200" people have any memory loss, their

fact sheet states, and this loss is trivial and temporary. Yet when pressed about that ratio's validity, Harold Sackeim, Chief of Biological Psychiatry at the New York Psychiatric Institute and a member of the APA's Shock Therapy Task Force, will admit that the 1 in 200 figure is not scientifically based but "impressionistic." In other words, the numbers are made up. Psychiatrist Max Fink, the man most responsible for ECT's comeback in the 1980s, originally came up with the figure, which, Sackheim adds, will probably be deleted from future information handouts.47 Memory loss is the most common complaint of ECT patients. It can involve losing memories of events prior to treatment, after treatment, or both. Just how many people are affected by amnesia was documented in California, where, in 1990, the reported incidence of memory loss was 82 percent and in 1994 jumped to just about 100 percent.48 The mechanism of this amnesia is simple to understand: Memories are stored in brain cells, and the destruction of these cells removes the places where memories dwell. The scientific literature is replete with research confirming memory damage from ECT as the rule rather than the exception. For example, in Freeman and Kendell's 1986 study, 74 percent of patients mentioned "memory impairment" as a continuing problem, and "a striking 30 percent felt that their memory had been permanently affected." The authors mentioned hat these symptoms were probably underreported because the patients were interviewed by the same doctors who treated them.49 An interesting note: The 1990 APA Task Force cites Freeman and Kendell - these same authors - as indicating, "a small minority of patients, however, report persistent deficits." Even studies by ECT advocates report memory impairment resulting from the procedure. Harold Sackeim indicated in his 1992 text, Cognitive Disorders: Pathophysiology and Treatment, that "...disordered thinking, particularly amnesia, can be long-lasting after shock."50 Larry Squire, a neuroscientist at the University of California at San Diego, who publicly proclaims ECT to affect memory only for up to six months before and after treatment, has seen longer effects in several of his studies, including one instance documenting a 30-year loss.51 In addition to the memory loss that can occur after ECT, there is the problem of cognitive deficits, some of which can be subtle and difficult to measure, particularly if doctors aren't looking for them. One ECT critic, Daniel B. Fisher, a psychiatrist near Boston who never recommends electroshock because of the unpredictable nature of its side effects, says that although a person's ability to perform routine tasks might return, he or she could lose special skills. As an example, he cites a woman, who once finished with her treatment series, was able to cope with everyday life but was no longer able to play piano.52 This leads us to the plight of some of

those in our society with the most artistic temperaments. These are people who contribute greatly to our culture, but whose sensitivity can open them up to deep sadness, making them prime candidates for ECT. They then become vulnerable to losing those very gifts that make up who they are and how they earn their livelihood. One of the most famous examples of this is Ernest Hemingway, who, after beginning his second course of shock treatments, said to a visitor, "What these shock doctors don't know is about writers and such things as remorse and contrition and what they do to them. What is the sense of ruining my head and erasing my memory, which is my capital, and putting me out of business? It was a brilliant cure but we lost the patient." Shortly thereafter, Hemingway killed himself. As a result of memory loss, learning and work situations requiring any degree of intellectual ability can become impossible. In her 1995 testimony to legislators in support of an electroshock ban, Margaret Nunley related how being shocked as a young teenager in 1956 resulted in life-long problems, including the inability to retain information and keep a good job: "I have difficulty reading, and spelling, and remembering words. Despite the fact I have a degree in sociology... I have been unable to hold a job in that field because of my disabilities. It took me 11 years to graduate from college because of the difficulties from the trauma..."53 Another letter written to the FDA states: "In addition to destruction of entire blocks of pre-ECT memories, I have continued to have considerable difficulty in memory with regard to academic pursuits...Currently, I am finding it extremely embarrassing and hurtful when fellow classmates...refer to my struggles in grasping my study materials thusly: 'You are an air brain!' How can I explain that my struggles are due to ECT?"54 It is not uncommon for a sense of terror to accompany the experience of memory loss, as a 48-year-old woman explains: "I came home from the office after that first day feeling panicky. I didn't know where to turn. I was terrified. All my beloved knowledge, everything I had learned in my field during 20 years or more was gone. I'd lost the body of knowledge that constituted my professional skill...I'd lost my experience, my knowing. But it was worse than that. I felt I'd lost myself."55 To reduce memory loss, some psychiatrists recommend unilateral treatment, where one electrode is placed on a temple and another above the back of the neck on the same side of the head. This modification is not often used, however, as most practitioners feel bilateral ECT, in which electrodes are placed on both of the subject's temples, is more effective. Notes one proponent, "My thought about unilateral stimulation is that it fails to cure. I think this failure to cure is in direct proportion to the avoidance of memory loss."56 Additional Complications

"Asked if the fatal heart failure could have resulted from the shock therapy, Dr. Cadden replied, 'Yes, it could have caused dysrhythmia.' Mr. Franco had no history of heart problems and an autopsy revealed his heart was normal." – Jim Kelly, Sunday Times of Western Australia57

Cardiovascular complications arising out of ECT are commonly seen in scientific literature. For instance, the Journal of Clinical Psychiatry reported that 28 percent of a group of 42 patients undergoing ECT suffered cardiovascular problems following treatment. Of the patients who already had a history or indication of cardiac disease, 70 percent developed cardiac complications.58 The Journal of Humanistic Psychology reported on a 57-year-old man who died of heart rupture after receiving several shock treatments.59 From that same article: "Physicians from Tulane University Medical School reported on a 69-year-old woman who developed brain hemorrhaging during ECT. She was also left with epilepsy afterward. This was, as expected, associated with further deterioration in her mental status from her baseline depression. They conclude that the fragile vessels of the elderly may make some patients a particularly high risk for ECT." Inducing a grand mal seizure can also result in epilepsy or spontaneous seizures afterwards. According to a 1983 report in Neurology, the incidence of new seizures is five times greater than the occurrence in the general population among people who have never received shock.60 Other reports have found seizure activity to be high immediately following ECT, even if people didn't have actual breakthrough seizures. In other words, while physical convulsing was not necessarily present, brain wave tests were abnormal, revealing spots of seizure activity.61 62 Another problematic finding is a possible ECT connection to breast cancer. An association between the two was made in a 1996 study published in the American Journal of Psychiatry, which concluded that chronically medicated female psychiatric patients had a rate of breast cancer three-and-a-half times higher than that for patients at a general hospital and nine-and-a-half times greater than in the general population. Identified among the risk factors for developing and accelerating breast cancer were increased levels of prolactin, a pituitary hormone affecting the mammary glands that increases with certain psychiatric medications and ECT.63 A Danger for the Old

"The elderly are the people who can least stand [shock]. This is gross mistreatment on a national scale." - Nathaniel Lehrman, former Clinical Director of Kingsboro State Mental Hospital in NY64

A woman in her 70s copes with recurring bouts of depression after the death of her

beloved husband. She consults a psychiatrist who tells her all she needs to bring her out of the dark is ECT. What he fails to consider is that his patient has a weak heart, and the consent form she signs mentions nothing of this risk. The woman allows herself to undergo treatment and, days later, dies. This particular scenario is made up, but variations on it happen all too frequently. Consider that half of the 100,000 Americans being shocked each year are senior citizens. Now consider records from Texas, the only state required to track complications within two weeks of ECT administration. These records document a death rate from ECT of 1 in 200 recipients of the treatment. Statistics also reveal that the typical candidate for ECT is a depressed middle- or upper-middle-class woman in her 70s who checks herself into a private hospital. The targeted population has shifted since the 1950s and 60s, when schizophrenic men in their 40s were the primary group subjected to ECT, and the reason is economics. Insurance no longer supports long hospital stays, but Medicare, the government's medical insurance program for people 65 and older, will generously reimburse psychiatrist who administer ECT. This incentive is apparent once again in Texas records, which shows 65-year-olds receiving 360 percent more shock therapy than 64-year-olds.65 Psychiatrists will say that shock therapy is safer than medicines for treating geriatric depression, a claim contradicted by research. In one investigation of 34 people over the age of 85 who were subjected to shock, the Mayo Clinic determined that 79 percent of the patients suffered complications during treatment, such as confusion and delirium, high blood pressure, serious heart arrhythmias that necessitated immediate treatment, and EKG changes. Since only short-term effects were noted, problems that could have arisen months later, such as the development of seizures, or even death, were not even counted.66 In another study, ECT advocates Coffey and Figiel found that 11 percent of elderly patients given ECT for depression remained delirious in the 48 hours between shock sessions due to the shock itself. In addition, MRI scans showed new abnormalities in the brains of 90 percent of these patients.67 Doctors who consider shock therapy safe and effective deny that ECT plays a role in diminished health and early death; instead they blame age-related health problems. Psychiatrist Richard Abrams, for instance, has said that even if a patient had a heart attack minutes after treatment, "it may very well not be ECT-related." 68 And the memory loss and brain damage so commonly associated with ECT can easily be passed off as signs of the aging process, making ECT almost malpractice-free. But again, the research tells the real story. One has only to look at the Winter 2000 edition of the Journal of Humanistic Psychology, in which the longevity of ECT patients and controls was compared. The study

found survival rates of ECT patients to be 73 percent at one year, 54 percent at two years, and 51 percent at three years. Control subjects – those who were depressed but who did not receive ECT – lived significantly longer: The respective figures were 96, 90, and 75 percent.69

But Does it Work?

"[Shock] would be no different than if you were troubled about something in your life, and you got into a car accident and had a concussion." - Psychiatrist Dr. Lee Coleman 70 Psychiatrists hail electroshock as the best method for curing affective disorders and stopping suicides. One of its most zealous proponents, Dr. Max Fink, a Professor of Psychiatry at the State University of New York at Stony Brook and the editor-in-chief of Convulsive Therapy, goes so far as to proclaim ECT "God's gift to man" and has stated that "[it should be given to] all patients whose condition is severe enough to require hospitalization."71 72 A closer look, however, casts doubt on psychiatry's enthusiasm. To begin, one needs to ask what psychiatrists actually mean when they call electroshock effective. For how long do patients show improvement from depression? What do studies conclude about ECT and suicide prevention? And what do psychiatrists actually consider patient improvement? What an ECT fact sheet fails to tell patients is that the improvements are temporary. Studies have never concluded that patients remain depression-free for longer than a month.73 Initially, ECT recipients score higher on the Hamilton Depression Scale, a test used to measure depression, but weeks later their scores drop again. This is why psychiatrists recommend follow-up treatments with antidepressants or more electroshock every few weeks. Maintenance with antidepressants, however, does not guarantee success, according to one study published in the New England Journal of Medicine. The study reported a 59-percent return to depression two months following ECT.74 How doctors can justify ECT as effective is explained by outspoken critic and former victim Leonard Roy Frank. Frank says that psychiatry's underlying assumption is that affective disorders are usually chronic and irreversible. "Once a depressive, always a depressive" is their core belief. That viewpoint justifies the use of any intervention that helps somewhat. When patients regress, as they are sure to do, a booster shock is viewed as a necessary part of their ongoing treatment.75 Perhaps this is why Harold Sackeim, the number-one advocate of electroshock in the United States, boasted on a 60 Minutes segment that ECT was one of the most effective treatments available, even though his own research, published just weeks earlier in the Journal of the American Medical Association, concluded that in six

months time, patients who had undergone ECT had a 100-percent relapse rate.76 An important argument for ECT is that it prevents suicide, but no evidence supports this claim. On the contrary, evidence exists to refute it. For instance, a large New York-based study found suicide rates among depressed, shocked subjects to be slightly higher than rates among depressed, non-shocked controls a year later. A five-year follow-up found suicide rates to be equal for both groups.77 In a University of Iowa study, over a thousand depressed patients were categorized according to whether they received shock, low or high doses of an antidepressant, or no treatment at all. Years later, it was discovered that all groups had similar suicide rates. The authors concluded, "...active biological treatments, such as ECT, may not be deemed as 'lifesaving' now as in the past."78 Whether ECT is ever effective depends on your definition of the term. "What shock does is throw a blanket over people's problems," says a report for the National Heal Injury Foundation. "It would be no different than if you were troubled about something in your life, and you got into a car accident and had a concussion. For a while you wouldn't worry about what was bothering you because you would be so disoriented. But in a few weeks when the shock wears off, your problems come back."79 Psychiatrist Peter Breggin's "brain-disabling hypothesis" postulates that behavior changes occurring after shock are misinterpreted as improvement. Actually, the amnesia, denial, euphoria, apathy, helplessness, and submissiveness that produce forgetfulness and compliance are symptoms of psychiatrogenic (psychiatrist-induced) brain damage, not recovery.80 Money Matters "We're looking for more bang for the buck in health care today." - Joel Holiner, Dallas, Texas, shock psychiatrist81

Electroconvulsive therapy is to psychiatry what open-heart surgery and hysterectomy are to other branches of medicine – a lucrative income booster. Charges of several hundreds of dollars per treatment add up quickly, so that physicians shocking patients three times a week, for instance, can increase their salary by over \$27,000 a year,82 and more ambitious doctors may receive a \$200,000 bonus.83 With the electroshock industry grossing two to three billion dollars a year, and psychiatric groups lobbying for relaxed restrictions, doctors have ample opportunity for financial gain.84 Since most insurance policies permit month-long hospital stays, a course of ECT may be begun right away. Or it may start a month later when Major Medical insurance kicks in for "major" treatment protocols, of which ECT is one. This second option is the best deal for private psychiatric facilities (where the bulk of ECT takes place), as beds remain filled longer for a charge of several thousand dollars per patient. Afterwards, insurance will reimburse patients for outpatient

follow-up procedures, in which people are drugged, shocked, wheeled into the recovery room while in a coma, and sent home in a stupor the very same day. The importance of insurance in influencing who gets treatment was noted by one psychiatrist, who stated, "Finding that the patient has insurance seemed like the most common indication for giving electroshock."85 Financial incentives may also influence electroshock's experts and policy makers, although psychiatrist Richard Abrams, author of the definitive text Electroconvulsive Therapy, would disagree. Abrams is a co-owner of Somatics, a large shock machine company whose annual sales to hospitals around the world bring in a yearly income that about equals a second psychiatry practice - over \$100,000. Abrams, a prominent physician who has written dozens of articles on ECT and testified numerous times on behalf of doctors or hospitals sued by former electroshock patients, sees no conflict of interest between his profitable ownership and his role as a so-called objective expert. Yet he has never willing disclosed his business association to the medical and scientific community or to the public. Another leading expert, Max Fink, a professor of psychiatry whose enthusiasm helped revive ECT in the 1980s, has made videos promoting the treatment that are geared toward patients, their families, and hospital personnel. Fink sold exclusive rights to his videotape to Somatics for \$18,000, and he receives a percentage of the royalties for each sale. Fink was a member of the 1990 ECT Task Force, a group that created treatment guidelines. The ethics of conflicting interests is discussed in Sandra Boodman's Washington Post article "Shock Therapy...It's Back." Boodman quotes Arthur Caplan, Director of the Center for Bioethics at the University of Pennsylvania's School of Medicine, as asking, "...do patients get adequate full disclosure of options, or are you skewing how you present the facts because you have a financial stake in the treatment and you personally profit from it every time it's used?"86 Saying no to a lucrative opportunity is not easy for some, but anesthesiologist Michael Chavin of Baytown, Texas, decided, after wrestling with his conscience, that he could no longer participate in a procedure that was harming the elderly. "As an anesthesiologist, what I do for three to five minutes can have serious consequences later," Chavin concluded.87 In 1993, after having taken part in 3000 shock sessions, Chavin quit his hospital position as Chief of Anesthesiology at Baycoast Medical Center after discovering that "Electroshock is done by psychiatrists who give it for a living and therefore have a financial incentive in saying that it is harmless."88 Quitting this position lessened his earning potential by \$75,000, but he felt that he could no longer accept "dirty money." Now an outspoken critic of ECT, Chavin tells people that psychiatrists who administer electroshock for a living, "...cannot bring

themselves to admit any harm from ECT unless the patient gets electrocuted to death on the table while being videotaped and observed by a United Nations task force."89 It should be noted that Baycoast Medical Center stopped shocking patients shortly after Chavin's departure when one of their electroshock casualties died from respiratory complications.90 It Could Happen to You

"Getting locked up is easy, and once a prisoner of the system, all sorts of things can happen to a person. The profession of psychiatry is out of control, and people need to look and see what's happening." - Ted Chabasinski, former ECT patient91 You might not think so, but everyone is a candidate for ECT. Being human, we all experience problems. This is especially true in today's increasingly complex, troubled world for people at every stage of life. Consider these scenarios: An eight-year-old child returns from camp a different person—withdrawn, worried, and hard on herself. Her concerned parents consult a child psychologist. A college student under inordinate pressure to excel in school begins arguing with her mother, who believes her daughter is behaving irrationally. The mother calls a doctor who, in turn, recommends a psychiatrist. He thinks in-patient care is in order. An elderly person grieving over the loss of beloved family members and close friends stops eating and talking. The daughter calls the family doctor, who believes psychiatric intervention is needed. These are just a few of the many scenarios that could result in ECT. Once a person confides in a psychiatrist, instead of working through difficulties with compassionate talking, and looking at all the positive options that can arise even from a crisis, psychiatrists working within the current medical model often resort to a drug or some form of institutional care where ECT is almost always right around the corner. We tend to view doctors as omniscient. They know what's best for us, we believe, and have our interests at heart. When doctors recommend ECT, we may need a little persuading, but their mis-educational video assures us that risks are minimal and benefits great. Feeling needy, perhaps even desperate at this point due to the iatrogenic effect of drugs that leave us agitated, we blindly comply. Once we give our consent, it becomes difficult - and often impossible - to change our minds. Protesting the procedure, in fact, could very well result in more shocks. So reports an article in a recent issue of the Journal of Risk and Safety in Medicine: "Doctors frequently respond to complaints about ECT treatment by deciding that he patient is in need of more treatment. Increased exposure to the brain-damaging effects of ECT can almost always be relied on to eventually put an end to the patient's protests."92 The fact is that anyone speaking to a psychiatrist is at risk of being perceived as psychopathological. All a psychiatrist need do

is pick one or more conditions that seem to fit from the psychiatric "bible," the DSM manual, where hundreds of so-called "diagnosable conditions" are listed – everything from insomnia, worry, and caffeinism, to being shy. Very few of the "disorders" are organic; the majority is socially based. In its rush to diagnose and treat, what psychiatry forgets is that mental symptoms can be caused by poor physical health. An example of misdiagnosis is the case of Ruth Reed Price, whose nervous breakdown resulted in a diagnosis of schizophrenia when the real problem, discovered later, was a thyroid imbalance. In her 1995 testimony on banning electric shock in Austin, Texas, Price talked of the damage to her memory and nervous system that made returning to work a nightmare. "Instead of trying to really discover what was wrong," she says, "the Austin State Hospital staff made a wrong assumption and proceeded to damage my brain and impair my memory with their violent electric shock therapy."

## Survivors Speak

"I was going to school, writing, starting a career. All that's gone...About five years of my life are completely erased." - Linda

Being a recipient of ECT is stigmatizing. Many people remember Thomas Eagleton, the Missouri senator whose name was removed from the Democratic ticket as a vice presidential candidate when it was discovered that he had had shock therapy. The stigma, combined with the fact that electroshock survivors are generally dismissed as not knowing what is good for them, means that their concerns are not often heard or taken seriously. An example of this dismissal of patients' perceptions can be found in the website of ardent ECT advocate Dr. Max Fink. He's the psychiatrist who makes the promotional videos, and his pro-electroshock website - HYPERLINK "http://www.electroshock.org" www.electroshock.org - is a chilling example of how good PR can work to minimize and distort the true nature of a phenomenon. Fink's website purports to be objective, and one of the ways it does this is by listing the names of other sites, both pro- and anti-ECT. But here is the paragraph included just before his listing of "Anti-Psychiatry Web-sites": "FAIR WARNING: Individuals, many of whom have suffered mental illness and believe that they have been damaged by their treatment, maintain websites that are inaccurate, emotional, filled with invective, and with ad hominem attacks on psychiatric practitioners. The attitudes are similar to those of members of the Church of Scientology. None describe the present practice of psychiatry accurately." Notice the innuendo, the condescension, the generalization, and the ad hominem tone within this paragraph itself. An underlying assumption seems to be that if you've been treated for

mental illness, you're not a credible person. I differ with this. What's more, I believe that it is only by listening to the accounts of people who have actually undergone a treatment that we can fully understand its impact. That is why I've interviewed many ECT survivors, and why I am concluding with excerpts from what some of them had to say:

Lenore

"I received shock therapy at Iowa City State Mental Institution 28 years ago. I wasn't depressed; I wasn't suicidal...They were shocking everyone on the ward—the young, the really old, everyone. I don't remember anybody telling me what was going on or anything. All they said was that they were going to give me some treatments. Then I found out what true depression was. What were they shocking us for? I don't know. Ward control? To keep everyone nice and passive? "I don't know very much about it because it kind of wipes you out. What it does is replace all your childhood memories with this horrible memory of just waking up not knowing who you are. So, I don't know what kind of a person I would be if they hadn't done that to me. I had to learn how to read and write and talk and think all over again. I couldn't write, my hands shook so terribly, and I couldn't talk or think because I didn't have anything to think about or say with nothing in my head. I would just look at homes when they would take us bowling. We'd be on the bus, and I would be looking at homes rolling by, just wishing with all my heart that one of those homes was mine and that I wasn't sitting in this bus. Every single home I saw I wished was mine. It was really, really horrible. I had no memory of my parents or of anything. I didn't even know what my name was. They completely wiped out my memories. At age 18, they completely eliminated my entire life... "It took a long time for my memories to return. They didn't all come back because I don't remember a lot of events leading up to the shock, and I don't remember the experience. Many of my memories returned, but in a different way. It's like a deck of 52 cards, each with a snapshot. There's no connection between the memories, but there are snapshots of houses that we lived in and things that happened... "People recover from shock therapy in spite of what it has done to them and not because of what it's done... "I don't believe that depression has to be a brain abnormality. I think that there are lots of reasons for it. Some of them are cultural and some of them are personal. There could be lots of healthy alternatives for dealing with it. If they would come up to a depressed person and say, 'How would you like to go to a farm and ride some horses and take care of these animals for a while? Maybe that will make you feel better.' That could really help. Instead the offer is, 'You're depressed. Why don't we shock you?' Shock should not be one of the

alternatives."

Linda

"ECT was the most traumatic experience of my life. It caused memory loss and cognitive difficulties. My abstract thinking was severely affected, especially initially, and I had to learn things all over again that I once knew. I felt like I was mentally retarded. It's how I imagine somebody would be after having a stroke. I forgot a lot of things that had happened in my life. I would look at pictures, for example, vacations from many years before. I would see myself in a picture but not remember the vacation...Before a shock treatment, people are told that they will only forget what happened to them a few weeks before and after the treatment. But that wasn't my experience at all. "I'm a clinical social worker and have worked at a community mental health center. Some of the people I've seen have had ECT torture, just horrible experiences. Psychiatrists obviously do not take their own medicine, as only one treatment would convince them to never go through it again. It certainly was true for me. After the first one I knew that some day I had to do something different to help people because my experience was that of torture. I was amazed that I was still alive. It's not something I would wish on any human being. In my opinion, ECT ought to be banned and looked at by the United Nations in their policies against torture."

Don

"The media fails to tell the truth from the survivor's perspective. They don't talk about the permanent memory loss. They keep promoting the psychiatric lies that memory loss is temporary and minor. The truth is that people who have endured at least six or seven shock treatments have permanent memory loss. They can lose memory of months preceding treatment, but more often than not it's years. And the memory is spotty. It's not surprising that memory loss is generally permanent. Electrodes are often placed over the temporal lobes, and our memories are generally stored in that part of the brain. "Another thing – many people I've talked with complain that they can't concentrate as well anymore. They can't learn the way they used to. A friend of mine, for example, was voted Best Actress in Canada previous to her shock treatments. After getting between 16 and 18 shocks in Hamilton Psychiatric Hospital in Ontario, her acting career was ruined because she found it almost impossible to remember lines in a play."

Linda

"Unfortunately, there isn't anything I can recall about my experience with ECT. I don't know any more about having had it or about what happened in the five years before that

time than you do. I apparently had 15 sessions, which is pretty routine. I don't know what was happening with me, what was going through my mind, what my emotions were, but whatever it was they called it depression. I have no idea what depression is or what it feels like because I've never experienced it. Of course, I've known a lot of people who have experienced it, and I know it's a horrible thing, but I myself have no idea of what it's like just as I have no idea of what it's like to go through my college graduation or to be accepted by a graduate school or to get an NEA grant for my writing ability, which I did. All these things are wiped out along with whatever was going on in the short period when they said I was depressed. But there were many, many years when I was not depressed at all, when I was living a very full life by all accounts. I was going to school, writing, starting a career. All that's gone, too. About five years of my life are completely erased. "Imagine the feeling. At first there's incredible grief at your loss because the magnitude of your loss is too much to bear. How could anyone bear it? I mean you got up and lived your life as if it was going to matter, and then all of a sudden everything you did for those five years doesn't matter. The weight of what you've lost is overwhelming. You've got to grieve, and you've got to be very angry."

\_\_\_\_\_1Electroshock as Head Injury: Report for the National Head Foundation, Sept. 1991.

2Black D., Winoker, G., et al., "Does Treatment Influence Mortality in Depressives?" Annals of Clinical Psychiatry, 1989; 1:165–173.

3Cauchon, Dennis, "Stunningly quick results often fade just as fast," USA

Today, HYPERLINK "http://web.usatoday.com/life/health/lhs 188.htm"

http://web.usatoday.com/life/health/lhs 188.htm.

4Boodman, Sandra G., "Shock Therapy...It's Back," The Washington Post, Sept. 24, 1996, p. Z14.

5Lambourn J., and Gill, D., "A Controlled Comparison of Simulated and Real ECT," British Journal of Psychiatry, 1978; 133.514-519.

6Black D., Winokur G., et al., "Does treatment influence mortality in depressives?" Annals of Clinical Psychiatry, 1989; 1: 165-173.

7Cauchon, Dennis, "Stunningly quick results often fade just as fast," USA

Today, HYPERLINK "http://www.usatoday.com/life/health/1hs 188.htm"

http://www.usatoday.com/life/health/1hs 188.htm.

8Friedberg, J., Shock Treatment is Not Good for Your Brain, Glide Publications, San Francisco, 1976.

9Weisberg, L., Elliot, D., and Mielke, D., "Intracerebral hemorrhage following electroconvulsive therapy, Neurology, Nov. 1991; Vol. 41, No. 11: 1849.

10Breggin, P., Toxic Psychiatry, New York, St. Martin's Press, 1991, Ch. 9, "Shock treatment is not good for your brain."

11Electroshock as Head Injury: Report for the National Head Injury Foundation, Sept. 1991, pp. 5-11.

12Cauchon, Dennis, "Patients often aren't informed of full danger," USA Today, HYPERLINK "http://web.usatoday.com/life/health/lhs 195.htm"

http://web.usatoday.com/life/health/lhs 195.htm.

13Electroshock as Head Injury, op. cit. pp. 2-3.

14Boodman, op cit.

15Cauchon, Dennis, "ECT: History of shock," USA Today, Dec. 7, 1995.

16Myerson, Abraham, in discussion of Franklin G. Ebaugh, et al., "Fatalities following electric convulsive therapy: a report of two cases with autopsy findings," Trans. Ameri.

Neruol. Assoc. 68 (June 1942): p.39, as given in Wiseman, Bruce, Psychiatry: The Ultimate Betrayal, Los Angeles, Freedom Publishing, 1995, p.117, footnote 11.

17Frank, Leonard Roy, "Electroshock: Death, Brain Damage, Memory Loss, and Brainwashing," The Journal of Mind and Behavior, Summer and Autumn 1990, 11:3&4, p. 492.

18Cerletti, U., "Old and new information about electroshock," American Journal of Psychiatry, 107, Aug. 1950, 93–94, as given in Bruce Wiseman, Psychiatry: The Ultimate Betrayal, Los Angeles, Freedom Publishing, 1995, p. 118, footnote 12.

19"Creating Harm: The History of Electroshock," HYPERLINK

"http://www.cchr.org/ect/eng/page04.htm" http://www.cchr.org/ect/eng/page04.htm. 20Gary Null Interview with Moira Dolan, May 1,2001.

21Abrams, R.,(1988b). Interview with Lothar Kalinowsky, M.D., Convulsive Therapy, 4, p. 30, as reported in Frank, Leonard Roy, "Electroshock: Death, Brain Damage...," op. cit., p. 492.

22Ayd, F.J., Jr. (1963). Guest editorial: Ugo Cerletti, M.D., 1877-1963 Psychosomatics, 4, p. A7, as reported in Frank, Leonard Roy, "Electroshock: Death, Brain Damage...," op. cit., p. 493.

23Kesey, Ken, One Flew Over the Cuckoo's Nest, Viking Press, New York, 1962. p. 62. 24Boodman, op. cit.

25Kesey, Ken, op. cit, p. 242.

26Boodman, op. cit.

27Boodman, op. cit.

28Gary Null interview with Moira Dolan, May 1, 2001.

29lbid.

30Spikel, L., "The shocking truth, part 4: Forced electroconvulsive therapy isn't just the stuff of movies," as reported by Gary Null, May 1, 2001.31Plath, Sylvia, The Bell Jar, Harper & Row, New York, 1971.

32Electroshock as Head Injury: Report for the National Head Injury Foundation, Sept. 1991. 33Samant, Sydney, Clinical Psychiatry News, Mar. 1983.

34"Brain damage from electroshock - perpetuating cruelty, Psychiatry, inflicting pain,"

CCH, HYPERLINK "http://www.cchr.org/ect/end/page08.htm"

http://www.cchr.org/ect/end/page08.htm.

35Sterling, P., "ECT damage is easy to find if you look for it," Nature, 2000 Jan. 20; 403(6767):242.

36Breggin, Peter, R., "Electroshock: scientific, ethical, and political issues," International Journal of Risk & Safety in Medicine, 11 (1998) 5-40.

37Coffey, E., et al., "Brain anatomic effects of ECT," Arch. Gen. Psych., 1991; 48:1013-21.

38Weinberger, et al., "Structural abnormalities in the cerebral cortex of chronic schizophrenic patients," Arch. Gen. Psych., 1979; 36:935–9.

39Calloway, et al., "ECT and cerebral atrophy: a CT study," Acta Psych. Scand., 1981:64:442–5.

40Andreasen et al, "MRI of the brain in schizophrenia," Arch Gen Psych, 1990; 47:35-41.

41Dolan, R.J., et al, "The cerebral appearance in depressed subjects," Psychol Med, 1986; 16:775-9.

42Electroshock as Brain Injury: Report for the Head Injury Foundation, Sept. 1991.

43"Brain damage from electric shock," HYPERLINK

"http://www.cchr.org/ect/eng/page08.htm" http://www.cchr.org/ect/eng/page08.htm.

44Gordon, H.L. (1948). Fifty shock therapy theories. Military Surgeon, 103, 399-0401 as cited in Frank, L.R. Electroshock:Brain.

\*\*\*Page 40 with footnotes 45-48 missing\*\*\*

49Freeman, C., and Kendell, R., "Patients' experience of and attitudes to electroconvulsive therapy," Annals of the New York Academy of Sciences, 462 (1986), 341-52.

50Appendix to John Breeding, Ph.D. "Electroshock." Based on an article published in the J. of Humanistic Psychology, Winter 2000, Vol. 40:1, 65-79, citing Sackeim in Cognitive

Disorders: Pathophysiology and Treatment, edited by Moos, et al., 1992.

51Squire, L. (1973),"A thirty year retrograde amnesia following electroconvulsive therapy in depressed patients. Presented at the third annual meeting of the Society for Neuroscience, San Diego, CA. Squire, L., 1974, "Amnesia for remote events following electroconvulsive therapy," Behavioral Biology, 12 (1), 119–25. Squire, L., and Slater, P. 1983,

"Electroconvulsive therapy and complaints of memory dysfunction: a prospective three-year follow-up study," British J. of Psychiatry, 142, 1-8.

52Boodman, S.G., "Shock Therapy...it's back," op. cit.

53http://www.banshock.org/nunley/htm.

54Winter, F.M., Letter to the Food and Drug Administration, May 23, 1988, as cited in Electroshock as Head Injury, op. cit.

55Roueche, B., (1974, September 9). "As empty as Eve." The New Yorker, Sept. 9, 1974, 95–6, as cited in Frank, L.R., "Electroshock: Death, Brain Damage, Memory Loss, and Brainwashing," op. cit., 503.

56Thigpen, Ch.H., 1976, Letter, Convulsive Therapy Bulletin, 40, as cited in Frank L.R., op. cit., 505.

57Kelly, Jim, "Breaking News: Shock Death Link," Sunday Times newspaper of Western Australia, 1/21/01, HYPERLINK "http://www.banshock.org" http://www.banshock.org, 5/14/01.

58Joan P. Gerring, M.D. and Helen M. Shields, M.d., "The identification and management of patients with a high risk for cardiac arrhythmias during modified ECT," J Clin Psychiatry, 43–4.

59Appendix to John Breeding, Ph.D., Electroshock. Based on an article published in the Journal of Humanistic Psychology, Winter 2000, Vol. 40, No. 1, pp. 65–79 citing Ali, P.B. and Tidmarsh, M.D. Cardiac Rupture During Electroconvulsive Therapy Anesthesia 1997; 52:884–895.

60Devinsky and Duchowny, op. cit.

61 Varma, N.K. et al, "Nonconvulsive status epilepticus following ECT," Neurology, 1992: 42:2263-64.

62Weiner, RD, "Prolonged confusional states and EEG seizure activity following ECT and lithium use," Am J Psych, 1980: 137:1452-3.

63Uriel Halbreich, M.D., Jianhua Shen, M.D. and Victor Panara, M.D., "Are chronic psychiatric patients at increased risk for developing breast cancer?" American Journal of Psychiatry, 153, no. 4 (April 1996): 559–60.

64Cauchon, Dennis, "Patients often aren't informed of full danger," USA Today, Dec. 6, 1995.

65Ibid.

66Tomac, T., and Rummans, T. "Safety and efficacy of electroconvulsive therapy in patients over age 85," Am. J. Geriatr. Psy., 1997; 5:126-30.

67Figiel, Coffey, et al., "Brain MRI findings in ECT-induced delirium," J of Neuropsych and Clin Sci 1990: 2:53-8.

68lbid.

69Appenix to John Breeding, Ph.D. Electroshock. Based on an article published in the Journal of Humanistic Psychology, Winter 2000, Vol. 40, No. 1, pp. 65–79, citing Kroessler, D. and Fogel, B. "Electroconvulsive therapy for major depression in the oldest old," Am J Geriatr Psych 1993: 1:1:30–37.

70L. Coleman, quoted in Bielski, 1990. Cited in "Electroshock as head injury," Report for the National Head Injury Foundation, September 1991.

71 Boodman, op. cit.

72Edelson, E. "ECT elicits controversy—and results. Houston Chronicle, December 28, 1988, p. 3, as reported in "Electroshock: Death, Brain Damage, Memory Loss, and Brainwashing, op. cit., p. 493.

73Opton, E.M., Jr. (1985, June 4). Letter to the members of the panel National Institute of Health Consensus Development Conference on Electroconvulsive Therapy, as cited in Frank, L.R., "Electroshock: Death, Brain Damage, Memory Loss, and Brainwashing," op. cit., p. 497.

74Sandra G. Boodman, "Shock therapy...It's Back," op. cit.

75L.R. Frank, "Electroshock: Death..." op. cit., p. 497.

76Gary Null interview with Moira Dolan, 5/1/01.

77Babigan, H., et al., "Epidemiologic considerations in ETC," Arch Gen Psych, 1984; 41:246–53.

78Black et al., "Does treatment influence morality in depressives?" Ann Clin Psych 1989; 1:165-73.

79Coleman, quoted in Bielski, 1990. Cited in "Electroshock as head injury," Report for the National Head Injury Foundation, September, 1991.

80Frank, L.R., op. cit., p. 496.

81 Cauchon, Dennis, "Patients often aren't informed of full danger," op. cit. 82 lbid.

83Leonard Roy Frank, "Electroshock: Death, Brain Damage, Memory Loss, and Brainwashing," op. cit., p. 494.

84Leonard Roy Frank, "Electroshock: Death, Brain Damage, Memory Loss, and Brainwashing," op. cit., p. 494.

85Viscott, D. (1972). The Making of a Psychiatrist. Greenwich, Connecticut: Faucett. In Leonard Roy Frank, "Electroshock: Death..." op. cit., p. 494.

86Boodman, Sandra G., "Shock therapy...It's Back," op. cit.

87Cauchon, D., "Patients often aren't informed of full danger," op. cit.

88lbid.

89lbid.

90lbid.

91Gary Null interview with Ted Chabasinski, 5/18/01.

92Breggin, P.R., "Electroshock: scientific, ethical, and political issues," International Journal of Risk & Safety in Medicine, 11 (1998) 5-40; IOS Press.