

Alzheimer's Disease

Alzheimer's Disease is a progressive and irreversible brain disease that destroys mental and physical functioning in human beings, and invariably leads to death. It is the fourth leading cause of adult death in the United States. Alzheimer's creates emotional and financial catastrophe for many American families every year. Fortunately, a large amount of progress is being made to combat Alzheimer's disease every year.

To fully be able to comprehend and combat Alzheimer's disease, one must know what it does to the brain, the part of the human body it most greatly affects. Many Alzheimer's disease sufferers had their brains examined. A large number of differences were present when comparing the normal brain to the Alzheimer's brain. There was a loss of nerve cells from the Cerebral Cortex in the Alzheimer's victim. Approximately ten percent of the neurons in this region were lost. But a ten percent loss is relatively minor, and cannot account for the severe impairment suffered by Alzheimer's victims.

Neurofibrillary Tangles are also found in the brains of Alzheimer's victims. They are found within the cell bodies of nerve cells in the cerebral cortex, and take on the structure of a paired helix. Other diseases that have "paired helixes" include Parkinson's disease, Down's Syndrome, and Dementia Pugilistica. Scientists are not sure how the paired helixes are related in these very different diseases.

Neuritic Plaques are patches of clumped material lying outside the bodies of nerve cells in the brain. They are mainly found in the cerebral cortex, but have also been seen in other areas of the brain. At the core of each of these plaques is a substance called amyloid, an abnormal protein not usually found in the brain. This amyloid core is surrounded by cast off fragments of dead or dying nerve cells. The cell fragments include dying mitochondria, presynaptic terminals, and paired helical filaments identical to those that are neurofibrillary tangles. Many neuropathologists think that these plaques are basically clusters of degenerating nerve cells. But they are still not sure of how and why these fragments clustered together.

Congophilic Angiopathy is the technical name that neuropathologists have given to an abnormality found in the walls of blood vessels in the brains of victims of Alzheimer's disease. These abnormal patches are similar to the neuritic plaques that develop in Alzheimer's disease, in that amyloid has been found within the blood-vessel walls wherever the patches occur. Another name for these patches is cerebrovascular amyloid, meaning amyloid found in the blood vessels of the brains.

Acetylcholine is a substance that carries signals from one nerve cell to another. It is known to be important to learning and memory. In the mid 1970s, scientists found that the brains of those afflicted with Alzheimer's disease contained sixty to ninety percent less of the enzyme choline acetyltransferase (CAT), which is responsible for producing acetylcholine, than did the brains of healthy persons.

This was a great milestone, as it was the first functional change related to learning and memory, and not to different structures.

Somatostatin is another means by which cells in the brain communicate with each other. The quantities of this chemical messenger, like those of CAT, are also greatly decreased in the cerebral cortex and the hippocampus of persons with Alzheimer's disease, almost to the same degree as CAT is lost.

Although scientists have been able to identify many of these, and other changes, they are not yet sure as to how, or why they take place in Alzheimer's disease. One could say, that they have most of the pieces of the puzzle; all that is left to do is find the missing piece and decipher the meaning.

If treatment is required for someone with Alzheimer's disease, then the Alzheimer's Disease and Related Disorders Association (ADRDA), a privately funded, national, non-profit organization dedicated to easing the burden of Alzheimer victims and their families and finding a cure can be contacted. There are more than one hundred and sixty chapters throughout the country, and over one thousand support groups that can be contacted for help. ADRDA fights Alzheimer's on five fronts 1- funding research 2- educating and thus increase public awareness 3- establishing chapters with support groups 4- encouraging federal and local legislation to help victims and their families 5- providing a service to help victims and their families find the proper care they need.

Of all the scientists to emerge from the nineteenth and twentieth centuries there is one whose name is known by almost all living people. While most of these do not understand this man's work, everyone knows that its impact on the world of science is astonishing. Yes, many have heard of Albert Einstein's General Theory of relativity, but few know about the intriguing life that led this scientist to discover what some have called, "The greatest single achievement of human thought."

Einstein was born in Ulm, Germany on March 14, 1874. Before his first birthday, his family had moved to Munich where young Albert's father, Hermann Einstein, and uncle set up a small electro-chemical business. He was fortunate to have an excellent family with which he held a strong relationship. Albert's mother, Pauline Einstein, had an intense passion for music and literature, and it was she that first introduced her son to the violin in which he found much joy and relaxation. Also, he was very close with his younger sister, Maja, and they could often be found in the lakes that were scattered about the countryside near Munich.

As a child, Einstein's sense of curiosity had already begun to stir. A favorite toy of his was his father's compass, and he often marvelled at his uncle's explanations of algebra. Although young Albert was intrigued by certain mysteries of science, he was considered a slow learner. His failure to become fluent in German until the age of nine even led some teachers to believe he was disabled.

Einstein's post-basic education began at the Luitpold Gymnasium when he was ten. It was here that he first encountered the German spirit through the school's strict disciplinary policy. His disapproval of this method of teaching led to his reputation as a rebel. It was probably these differences that caused Einstein to search for knowledge at home. He began not with science, but with religion. He avidly studied the Bible seeking truth, but this religious fervor soon died down when he discovered the intrigue of science and math. To him, these seemed much more realistic than ancient stories. With this new knowledge he disliked class even more, and was eventually expelled from Luitpold Gymnasium being considered a disruptive influence.

Feeling that he could no longer deal with the German mentality, Einstein moved to Switzerland where he continued his education. At sixteen he attempted to enroll at the Federal Institute of Technology but failed the entrance exam. This forced him to study locally for one year until he finally passed the school's evaluation. The Institute allowed Einstein to meet many other students that shared his curiosity, and it was here that his studies turned mainly to Physics. He quickly learned that while physicists had generally agreed on major principals in the past, there were modern scientists who were attempting to disprove outdated theories. Since most of Einstein's teachers ignored these new ideas, he was again forced to explore on his own. In 1900 he graduated from the Institute and then achieved citizenship to Switzerland.

Einstein became a clerk at the Swiss Patent Office in 1902. This job had little to do with physics, but he was able to satiate his curiosity by figuring out how new inventions worked. The most important part of Einstein's occupation was that it allowed him enough time to pursue his own line of research. As his ideas began to develop, he published them in specialist journals. Though he was still unknown to the scientific world, he began to attract a large circle of friends and admirers. A group of students that he tutored quickly transformed into a social club that shared a love of nature, music, and of course, science. In 1903 he married Mileva Meric, a mathematician friend.

In 1905, Einstein published five separate papers in a journal, the Annals of Physics. The first was immediately acknowledged, and the University of Zurich awarded Einstein an additional degree. The other papers helped to develop modern physics and earned him the reputation of an artist. Many scientists have said that Einstein's work contained an imaginative spirit that was seen in most poetry. His work at this time dealt with molecules, and how their motion affected temperature, but he is most well known for his Special Theory of Relativity which tackled motion and the speed of light. Perhaps the most important part of his discoveries was the equation: $E = mc^2$.

After publishing these theories Einstein was promoted at his office. He remained at the Patents Office for another two years, but his name was becoming too big among the scientific community. In 1908, Einstein began teaching part time at the University of Berne, and the following year, at the age of thirty, he became employed full time by Zurich University. Einstein was now able to move to Prague

with his wife and two sons, Hans Albert and Eduard. Finally, after being promoted to a professor, Einstein and his family were able to enjoy a good standard of living, but the job's main advantage was that it allowed Einstein to access an enormous library. It was here that he extended his theory and discussed it with the leading scientists of Europe. In 1912 he chose to accept a job placing him in high authority at the Federal Institute of Technology, where he had originally studied. It was not until 1914 that Einstein was tempted to return to Germany to become research director of the Kaiser Wilhelm Institute for Physics.

World War I had a strong effect on Einstein. While the rest of Germany supported the army, he felt the war was unnecessary, and disgusting. The new weapons of war which attempted to mass slaughter people caused him to devote much of his life toward creating peace. Toward the end of the war Einstein joined a political party that worked to end the war, and return peace to Europe. In 1916 this party was outlawed by the government, and Einstein was seen as a traitor.

In that same year, Einstein published his General Theory of relativity, This result of ten years work revolutionized physics. It basically stated that the universe had to be thought of as curved, and told how light was affected by this. The next year, Einstein published another paper that added that the universe had no boundary, but actually twisted back on its self.

After the war, many aspects of Einstein's life changed. He divorced his wife, who had been living in Zurich with the children throughout the war, and married his cousin Elsa Lowenthal. This led to a renewed interest in his Jewish roots, and he became an active supporter of Zionism. Since anti-Semitism was growing in Germany, he quickly became the target of prejudice. There were many rumors about groups who were trying to kill Einstein, and he began to travel extensively. The biggest change, though, was in 1919 when scientist who studied an eclipse confirmed that his theories were correct.

In 1921, he traveled through Britain and the United States raising funds for Zionism and lecturing about his theories. He also visited the battle sites of the war, and urged that Europe renew scientific and cultural links. He promoted non-patriotic, non-competitive education, believing that it would prevent war from happening in the future. He also believed that socialism would help the world achieve peace.

Einstein received the Nobel Prize for Physics in 1922. He gave all the money to his ex-wife and children to help with their lives and education. After another lecture tour, he visited Palestine for the opening the Hebrew University in Jerusalem. He also talked about the possibilities that Palestine held for the Jewish people. Upon his return he began to enjoy a calmer life in which he returned to his original curiosity, religion.

While Einstein was visiting America in 1933 the Nazi party came to power in Germany. Again he was subject to anti-Semitic attacks, but this time his house was

broken into, and he was publicly considered an enemy of the nation. It was obvious that he could not return to Germany, and for the second time he renounced his German citizenship. During these early years in America he did some research at Princeton, but did not accomplish much of significance.

In 1939 the second World War began to take form. There was heated argument during this time over whether the United States should explore the idea of an atomic bomb. Einstein wrote to President Roosevelt warning him of the disaster that could occur if the Nazi's developed it first. Einstein did not participate in the development of the bomb, but the idea did stem from his equation $E=mc^2$. Just as he knew that the bomb was under development, he also knew when it was going to be used. Just before the bomb was dropped on Japan Einstein wrote a letter to the President begging him not to use this terrible weapon.

The rest of Einstein's life was dedicated to promoting peace. After the war ended, he declared, "The war is won, but the peace is not." He wrote many articles and made many speeches calling for a world government. His fame, at this point, was legendary. People from all over would write to him for advice, and he would often answer them. He also continued his scientific research until the day he died. This was on April 18, 1955. There is no doubt that he was dissatisfied that he never was able to find the true meaning of existence that he strove for all his life.

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Bill of Rights

How many rights do you have? You should check, because it might not be as many today as it was a few years ago, or even a few months ago. Some people I talk to are not concerned that police will execute a search warrant without knocking or that they set up roadblocks and stop and interrogate innocent citizens. They do not regard these as great infringements on their rights. But when you put current events together, there is information that may be surprising to people who have not yet been concerned: The amount of the Bill of Rights that is under attack is alarming.

Let's take a look at the Bill of Rights and see which aspects are being pushed on or threatened. The point here is not the degree of each attack or its rightness or wrongness, but the sheer number of rights that are under attack.

Amendment I

Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances.

ESTABLISHING RELIGION: While campaigning for his first term, George Bush said "I don't know that atheists should be considered as citizens, nor should they be considered patriots." Bush has not retracted, commented on, or clarified this statement, in spite of requests to do so. According to Bush, this is one nation under God. And apparently if you are not within Bush's religious beliefs, you are not a citizen. Federal, state, and local governments also promote a particular religion (or, occasionally, religions) by spending public money on religious displays.

FREE EXERCISE OF RELIGION: Robert Newmeyer and Glenn Braunstein were jailed in 1988 for refusing to stand in respect for a judge. Braunstein says the tradition of rising in court started decades ago when judges entered carrying Bibles. Since judges no longer carry Bibles, Braunstein says there is no reason to stand -- and his Bible tells him to honor no other God. For this religious practice, Newmeyer and Braunstein were jailed and are now suing.

FREE SPEECH: We find that technology has given the government an excuse to interfere with free speech. Claiming that radio frequencies are a limited resource, the government tells broadcasters what to say (such as news and public and local

service programming) and what not to say (obscenity, as defined by the Federal Communications Commission [FCC]). The FCC is investigating Boston PBS station WGBH-TV for broadcasting photographs from the Mapplethorpe exhibit.

FREE SPEECH: There are also laws to limit political statements and contributions to political activities. In 1985, the Michigan Chamber of Commerce wanted to take out an advertisement supporting a candidate in the state house of representatives. But a 1976 Michigan law prohibits a corporation from using its general treasury funds to make independent expenditures in a political campaign. In March, the Supreme Court upheld that law. According to dissenting Justice Kennedy, it is now a felony in Michigan for the Sierra Club, the American Civil Liberties Union, or the Chamber of Commerce to advise the public how a candidate voted on issues of urgent concern to their members.

FREE PRESS: As in speech, technology has provided another excuse for government intrusion in the press. If you distribute a magazine electronically and do not print copies, the government doesn't consider you a press and does not give you the same protections courts have extended to printed news. The equipment used to publish Phrack, a worldwide electronic magazine about phones and hacking, was confiscated after publishing a document copied from a Bell South computer entitled "A Bell South Standard Practice (BSP) 660-225-104SV Control Office Administration of Enhanced 911 Services for Special Services and Major Account Centers, March, 1988." All of the information in this document was publicly available from Bell South in other documents. The government has not alleged that the publisher of Phrack, Craig Neidorf, was involved with or participated in the copying of the document. Also, the person who copied this document from telephone company computers placed a copy on a bulletin board run by Rich Andrews. Andrews forwarded a copy to AT&T officials and cooperated with authorities fully. In return, the Secret Service (SS) confiscated Andrews' computer along with all the mail and data that were on it. Andrews was not charged with any crime.

FREE PRESS: In another incident that would be comical if it were not true, on March 1 the SS ransacked the offices of Steve Jackson Games (SJG); irreparably damaged property; and confiscated three computers, two laser printers, several hard disks, and many boxes of paper and floppy disks. The target of the SS operation was to seize all copies of a game of fiction called GURPS Cyberpunk. The Cyberpunk game contains fictitious break-ins in a futuristic world, with no technical information of actual use with real computers, nor is it played on computers. The SS never filed any charges against SJG but still refused to return confiscated property.

PEACEABLE ASSEMBLY: The right to assemble peaceably is no longer free -- you have to get a permit. Even that is not enough; some officials have to be sued before they realize their reasons for denying a permit are not Constitutional.

PEACEABLE ASSEMBLY: In Alexandria, Virginia, there is a law that prohibits people from loitering for more than seven minutes and exchanging small objects. Punishment is two years in jail. Consider the scene in jail: "What'd you do?" "I was waiting at a bus stop and gave a guy a cigarette." This is not an impossible occurrence: In Pittsburgh, Eugene Tyler, 15, has been ordered away from bus stops by police

officers. Sherman Jones, also 15, was accosted with a police officer's hands around his neck after putting the last bit of pizza crust into his mouth. The police suspected him of hiding drugs.

PETITION FOR REDRESS OF GRIEVANCES: Rounding out the attacks on the first amendment, there is a sword hanging over the right to petition for redress of grievances. House Resolution 4079, the National Drug and Crime Emergency Act, tries to "modify" the right to habeas corpus. It sets time limits on the right of people in custody to petition for redress and also limits the courts in which such an appeal may be heard.

Amendment II

A well regulated Militia, being necessary to the security of a free State, the right of the people to keep and bear Arms, shall not be infringed.

RIGHT TO BEAR ARMS: This amendment is so commonly challenged that the movement has its own name: gun control. Legislation banning various types of weapons is supported with the claim that the weapons are not for "legitimate" sporting purposes. This is a perversion of the right to bear arms for two reasons. First, the basis of freedom is not that permission to do legitimate things is granted to the people, but rather that the government is empowered to do a limited number of legitimate things -- everything else people are free to do; they do not need to justify their choices. Second, should the need for defense arise, it will not be hordes of deer that the security of a free state needs to be defended from. Defense would be needed against humans, whether external invaders or internal oppressors. It is an unfortunate fact of life that the guns that would be needed to defend the security of a state are guns to attack people, not guns for sporting purposes.

Firearms regulations also empower local officials, such as police chiefs, to grant or deny permits. This results in towns where only friends of people in the right places are granted permits, or towns where women are generally denied the right to carry a weapon for self-defense.

Amendment III

No Soldier shall, in time of peace be quartered in any house, without the consent of the Owner, nor in time of war, but in a manner to be prescribed by law.

QUARTERING SOLDIERS: This amendment is fairly clean so far, but it is not entirely safe. Recently, 200 troops in camouflage dress with M-16s and helicopters swept through Kings Ridge National Forest in Humboldt County, California. In the process of searching for marijuana plants for four days, soldiers assaulted people on

private land with M-16s and barred them from their own property. This might not be a direct hit on the third amendment, but the disregard for private property is uncomfortably close.

Amendment IV

The right of the people to be secure in their persons, houses, papers and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.

RIGHT TO BE SECURE IN PERSONS, HOUSES, PAPERS AND EFFECTS AGAINST UNREASONABLE SEARCHES AND SEIZURES: The RICO law is making a mockery of the right to be secure from seizure. Entire stores of books or videotapes have been confiscated based upon the presence of some sexually explicit items. Bars, restaurants, or houses are taken from the owners because employees or tenants sold drugs. In Volusia County, Florida, Sheriff Robert Vogel and his officers stop automobiles for contrived violations. If large amounts of cash are found, the police confiscate it on the PRESUMPTION that it is drug money -- even if there is no other evidence and no charges are filed against the car's occupants. The victims can get their money back only if they prove the money was obtained legally. One couple got their money back by proving it was an insurance settlement. Two other men who tried to get their two thousand dollars back were denied by the Florida courts.

RIGHT TO BE SECURE IN PERSONS, HOUSES, PAPERS AND EFFECTS AGAINST UNREASONABLE SEARCHES AND SEIZURES: A new law goes into effect in Oklahoma on January 1, 1991. All property, real and personal, is taxable, and citizens are required to list all their personal property for tax assessors, including household furniture, gold and silver plate, musical instruments, watches, jewelry, and personal, private, or professional libraries. If a citizen refuses to list their property or is suspected of not listing something, the law directs the assessor to visit and enter the premises, getting a search warrant if necessary. Being required to tell the state everything you own is not being secure in one's home and effects.

NO WARRANTS SHALL ISSUE, BUT UPON PROBABLE CAUSE, SUPPORTED BY OATH OR AFFIRMATION:

As a supporting oath or affirmation, reports of anonymous informants are accepted. This practice has been condoned by the Supreme Court.

PARTICULARLY DESCRIBING THE PLACE TO BE SEARCHED AND PERSONS OR THINGS TO BE SEIZED: Today's warrants do not particularly describe the things to be seized -- they list things that might be present. For example, if police are making a drug raid, they will list weapons as things to be searched for and seized. This is done not because the police know of any weapons and can particularly describe them, but because they allege people with drugs often have weapons.

Both of the above apply to the warrant the Hudson, New Hampshire, police used when they broke down Bruce Lavoie's door at 5 a.m. with guns drawn and shot and killed him. The warrant claimed information from an anonymous informant, and it said, among other things, that guns were to be seized. The mention of guns in the warrant was used as reason to enter with guns drawn. Bruce Lavoie had no guns. Bruce Lavoie was not secure from unreasonable search and seizure -- nor is anybody else.

Other infringements on the fourth amendment include roadblocks and the Boston Police detention of people based on colors they are wearing (supposedly indicating gang membership). And in Pittsburgh again, Eugene Tyler was once searched because he was wearing sweat pants and a plaid shirt -- police told him they heard many drug dealers at that time were wearing sweat pants and plaid shirts.

Amendment V

No person shall be held to answer for a capital, or otherwise infamous crime, unless on a presentment or indictment of a Grand Jury, except in cases arising in the land or naval forces, or in the Militia, when in actual service in time of War or public danger; nor shall any person be subject to the same offence to be twice put in jeopardy of life or limb; nor shall be compelled in any criminal case to be a witness against himself, nor be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use without just compensation.

INDICTMENT OF A GRAND JURY: Kevin Bjornson has been proprietor of Hydro-Tech for nearly a decade and is a leading authority on hydroponic technology and cultivation. On October 26, 1989, both locations of Hydro-Tech were raided by the Drug Enforcement Administration. National Drug Control Policy Director William Bennett has declared that some indoor lighting and hydroponic equipment is purchased by marijuana growers, so retailers and wholesalers of such equipment are drug profiteers and co-conspirators. Bjornson was not charged with any crime, nor subpoenaed, issued a warrant, or arrested. No illegal substances were found on his premises. Federal officials were unable to convince grand juries to indict Bjornson. By February, they had called scores of witnesses and recalled many two or three times, but none of the grand juries they convened decided there was reason to criminally prosecute Bjornson. In spite of that, as of March, his bank accounts were still frozen and none of the inventories or records had been returned. Grand juries refused to indict Bjornson, but the government is still penalizing him.

TWICE PUT IN JEOPARDY OF LIFE OR LIMB: Members of the McMartin family in California have been tried two or three times for child abuse. Anthony Barnaby was tried for murder (without evidence linking him to the crime) three times before New Hampshire let him go.

COMPELLED TO BE A WITNESS AGAINST HIMSELF: Oliver North was forced to testify

against himself. Congress granted him immunity from having anything he said to them being used as evidence against him, and then they required him to talk. After he did so, what he said was used to find other evidence which was used against him. The courts also play games where you can be required to testify against yourself if you testify at all.

COMPELLED TO BE A WITNESS AGAINST HIMSELF: In the New York Central Park assault case, three people were found guilty of assault. But there was no physical evidence linking them to the crime; semen did not match any of the defendants. The only evidence the state had was confessions. To obt