

ALDO VICENTIN: ONE MORE VICTIM OF ASBESTOS

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By **Conceição Lemes**, special report for **Viomundo** (www.viomundo.com.br) at <http://www.viomundo.com.br/denuncias/conceicao-lemes-aldo-vicentin-mais-uma-vitima-do-amianto/>

Aldo Vicentin was interviewed by Conceição Lemes before his unsuccessful surgery. He died on July 3, 2008.



Aldo Vicentin, before his surgery, with Eliezer de Souza, a fellow asbestos activist; Eliezer is president of Abrea.



Aldo, in the intensive care unit of the Heart Institute after the surgery. July, 3rd, he died at 9:30 a.m.

The International Labour Organization – ILO, a UN specialized agency – warns: worldwide, asbestos kills 100,000 workers per year. In Brazil, according to the Ministry of Labour and Employment (*Ministério do Trabalho e Emprego – MTE*), 1 million people may be directly exposed to the assassin fiber – or devil’s fiber, as the mineral is known. It is carcinogenic. It is banned in 49 countries, including Argentina, Chile, Uruguay and the European Union. Here, it is forbidden in the states of Rio de Janeiro, Rio Grande do Sul, Pernambuco and, most recently, São Paulo. On June 4th, the Federal Supreme Court (*Supremo Tribunal Federal – STF*) ruled by 7 votes to 3 that the bill 12.684, which bars the use of asbestos in that state, is constitutional. In other words, the use of asbestos is forbidden in the state of São Paulo.

Aldo Vicentin, a 66-year-old, was the Secretary-General of the Brazilian Association of People Exposed to Asbestos (*Associação Brasileira dos Expostos ao Amianto -- Abrea*), was not in a condition to commemorate the asbestos ban victory. While the legality of the law was being decided by the STF, he had been hospitalized in the São Paulo Heart Institute (*Instituto do Coração -- Incor*) in a fight for his life. He was trying to get rid of all traces of mesothelioma -- a malignant cancer of the pleura, the membrane which surrounds the lung. It is an extremely aggressive tumor caused by occupational or environmental exposure to asbestos; there are few treatment options and no cures for mesothelioma. Almost all the people diagnosed with mesothelioma die within a year or two. Aldo is married to Gizelia, and he has two daughters and a grandson.

“From 1964 top 1968 I worked at Eternit’s raw materials warehouse in Osasco. I helped load pipes, water tanks, and roof tiles onto the trucks,” he recalled to this reporter before the surgery. “I was 22 years old, and I didn’t know anything about asbestos. I just found out in 1994/1995, when I applied for retirement, that I had been working under unhealthy, dangerous conditions.”

Aldo had already lost count of the number of friends whom asbestos had taken away. “Now I’m the one with this liability,” he says indignantly, referring to the tumor which showed up 44 years later. “It happened all of a sudden. I began to feel tired, unable to walk up a little ramp....In the X-ray from a year and half ago there was nothing wrong. Then three months ago they did an X-ray which showed that my left lung had been totally taken over by the cancer.” Dona Gizelia has been totally devastated: “The mesothelioma is a hurricane; it destroys everything in its path.”

“At first, we didn’t know that asbestos was harmful, and then we had a few cases of respiratory dysfunction in the Osasco asbestos-cement factory, which has now been shut down. At that time we used mainly amphibole asbestos,” says Élio Martins, president of the Grupo Eternit, the largest company in the asbestos field in Brazil. “Around 1980 we started working exclusively with chrysotile asbestos. We made very heavy investments in protective measures and we eliminated all the risks to workers. Since that time, no workers have gotten sick in either our factories or our mine.”

The company that owns the asbestos mine is called SAMA, located in Minaçu, in the state of Goiás. Currently, it is the only active asbestos mine in Brazil and it produces chrysotile asbestos, a member of the serpentine family of fibers. Blue and brown asbestos are amphiboles; they have been banned throughout the entire world as these fibers are more aggressive than chrysotile,

“But there are not just a few cases, but actually thousands of people with serious lung diseases, among them mesothelioma,” affirms Fernanda Giannasi, a safety engineer and an inspector with the Ministry of Labor and Employment (MTE), in São Paulo. “How is it possible to guarantee that starting in 1980 nobody got sick? That’s just bogus futurology. We work with the science of epidemiology, and the studies demonstrate that asbestos-related diseases take 20, 30, or 40 years to develop. Aldo’s mesothelioma took 44 years!”

“On top of that, there’s a huge under-notification; there are people dying from mesothelioma without knowing it,” reveals the pulmonologist Hermano Albuquerque de Castro, a professor at the National School of Public Health (*Escola Nacional de Saúde Pública*) and coordinator of the Center for Studies on Workers Health and Human Ecology (*Centro de Estudos da Saúde do Trabalhador e Ecologia Humana*) of the

Oswaldo Cruz Foundation (Fiocruz), in Rio de Janeiro. There's lack of access to health services and under preparedness from doctors to diagnose it adequately. In the 1990s, mesothelioma provoked, on average, 100 deaths per year; in the decade of 2000, around 200. "The tendency is that the number of cases and casualties will grow," he emphasizes.

Adilson Santana, an employee of SAMA for the past 22 years, director of the Minaçu Miners Union (*Sindicato dos Mineiros de Minaçu*) and vice-president of the National Commission of Asbestos Workers (*Comissão Nacional dos Trabalhadores do Amianto* – CNTA), disagrees: "Unlike the 1980s, today there is no risk to the mine's workers nor to those in factories. It is totally safe to work with chrysotile."

"What the vice-president of CNTA says is far from true," declares Eliezer João de Souza, 67, who is president of Abrea. Souza worked for Eternit at its Osasco factory in São Paulo from 1967 to 1981 and knows that chrysotile is also carcinogenic. In 2007, when he was in Minaçu to organize the local anti-asbestos movement, he saw two people die from exposure to asbestos. He also found out that there were a number of cancer cases among people who had started working with asbestos after the 1980s. In the town of Minaçu, the population at large has no idea of the dangers of asbestos. In addition, the CNTA, even though it's a labor organization, works for the asbestos industry rather in the interest of the worker.

"Whoever works with asbestos has a rope around his neck," declares Eliezer. "The death certificate is ready. It is just a matter of time until the assassination." In 2000, he had to have some nodules extracted from his lung. Now it is suspected that he has asbestosis, also known in Brazil as "stone lungs". The disease causes the "hardening" of the lungs, leading little by little to the progressive loss of respiratory capacity; it can lead to death – the so-called slow death.

FROM "MAGIC MINERAL" TO "KILLER FIBER"

Asbestos is the commercial name adopted for a group of minerals basically made up of magnesium silicate, a rock that is present in nature. Depending on the region it is rather easily accessible, once the topsoil is stripped off. If not disturbed where it is found in the earth, it causes no harm to human health. For the most part, undisturbed asbestos fibers erode gradually, due to the action of wind and rain, and are too large to be deeply inhaled. Most are trapped and filtered out by people's nose hairs and do not manage to end up deep in the respiratory system.

The problem with asbestos begins when it is mined. The asbestos ore is ground up; five percent is transformed into fine threads which resemble human hair. Those are the long fibers which have a high commercial value. They come to constitute a very fine dust,

whose smallest fibers are invisible to the naked eye, and can be seen only through a microscope.

Asbestos is a cheap, durable product which cannot be destroyed by fire and which can be woven into thread and textiles -- the perfect "magic mineral," until its lethal properties became more widely known. Countless products utilize asbestos. When kneaded like a cake mix with wet cement, for example, it can be easily formed into a variety of products, such as roof tiles and shingles, acoustic panels, floor tiles, wall coverings, room dividers, water tanks, and water pipes. When the asbestos fibers are chemically bound with certain artificial resins, they are used to produce brake shoes and clutches, and other friction products.

It's no accident that asbestos is found everywhere people live: from the São Marcos Indian reservation in Roraima (Northern part of the country in the board with Venezuela) to the backstage of the São Pedro Opera House in São Paulo. And whether you're at home, in school, at work, in the park, in a car or a bus it is almost certain that you are not far from some asbestos product.



São Marcos Indian reservation in Roraima



São Marcos Indian reservation in Roraima



São Pedro Opera House



São Pedro Opera House

“Since 1906, we have known that asbestos is dangerous to people’s health,” warns Fernanda Giannasi. At that time, research in England proved that workers who handled asbestos suffered from “clogging up” of their lungs, which triggered a progressive and incapacitating diminution of respiratory capacity.

During the 1940s studies began to raise the possibility that asbestos might be a cancer-causing agent. By the 1950s, the link between asbestos exposure and cancer was totally proved. A fatal illness called mesothelioma was also shown to be linked to asbestos. Later studies reinforced these earlier conclusions. By the 1980s, we were already familiar with practically all the diseases which are caused by exposure to asbestos, and which were the most seriously affected population groups. The International Agency for Research on Cancer (IARC) identified asbestos as a proven human carcinogen. The IARC, headquartered in Lyons, France, is affiliated with the World Health Organization (WHO). From that time on, asbestos began to be known as the “killer fiber” or “the devil’s fiber”.

THE VARIOUS ILLNESSES CAUSED BY ASBESTOS

Asbestos is associated with several health related problems.

“In the short term, of one or two years, it can unleash diseases that reduce the breathing capacity,” informs the pulmonologist Hermano de Castro. “This happens due to an inflammatory process.”

The lung is similar to a large “sponge” connected to “pipes” which transport air to its interior. The trachea and the bronchi are the “pipes”. The “sponge”, or pulmonary parenchyma, are the millions of alveoli: little “bags” where inhaled oxygen, essential to life, is exchanged for carbon dioxide, “garbage” produced by the body. “The ‘sponge’

corresponds to about 90% of lung area,” explains the physician Iolanda Calvo Tibério, an Associate Professor of the Medical Clinic at the Faculty of Medicine of the University of São Paulo (USP). “Asbestos causes an inflammation of the pulmonary parenchyma, possibly causing granuloma.”

The “sponge” is rather elastic, so that the lungs can fill with air and empty adequately. The inflammation, nevertheless, alters its tissue, making it fibrous. It is like a scar which forms over the skin when we get cut. That spot becomes harder, with less elasticity. The chronic inflammation can lead to the formation of nodules – the granulomas. “Gradually, the lung will lose its ability to expand in an adequate way,” continues Castro. “The person will feel shortness of breath, tiredness, coughing and mucus.”

Generally, after 10 to 15 years of asbestos exposure, fibrosis will alter the very structure of the lungs. It is asbestosis, or pulmonary fibrosis. The lungs “stiffen”, progressively losing its ability to expand. It provokes shortness of breath, back pain, tiredness and weight loss. “There is no cure, even if the person is never exposed to asbestos again,” warns Castro. “It slowly leads to death.”

In the long run, asbestos can promote changes in the cells which, after 25 or 30 years, can lead to lung cancer. Smokers who are exposed to lung cancer are 57 times more likely to end up with this malignancy than non-smokers exposed to asbestos. Asbestos and tobacco smoke have a synergetic effect, multiplying the chances for the development of lung cancer.

It is also possible, in the long run, to induce mesothelioma of the pleura (the membrane which lines the lung), of the peritoneum (the membrane which lines the abdominal cavity), and of the pericardium (the membrane which covers the heart). Mesothelioma is a malignant tumor which is extremely aggressive and almost always fatal. This tumor can manifest itself 35, 40, or 50 years after the first contact with asbestos. From 1983 through 2003 the Brazilian public health service (*Sistema Único de Saúde* -- SUS) identified 2,414 registered deaths of Brazilians from mesothelioma. The real number, however, is certainly much greater. The official data no doubt represents just the tip of an immense iceberg.

MESOTHELIOMA IS NOT DOSE-RELATED

“But chrysotile isn’t carcinogenic, by comparison with amphibole asbestos,” says Marina Júlia de Aquino, the president of the Brazilian Chrysotile Institute (IBC). “The legislation sets a limit on the number of fibers in the work environment, which our 11 members respect. Today, it is absolutely certain that the risk to asbestos workers is zero.” The IBC is an institution modeled after the Chrysotile Institute of Canada, with

which it maintains close working relations. Its main goal is to lobby for the interests of the industry.

The Eternit website, on its *Frequently Asked Questions* section, reinforces the IBC president's discourse: *Only the workers exposed during long periods of time to high concentrations of fibers are at risk. The workers in industries which follow the norms of controlled use are totally safe.* It goes further: *Nowadays, the risks of chrysotile asbestos are no longer an issue of public health, but an issue of occupational health.* In the interview to this reporter, the president Élio Martins repeated: "Asbestos is only a matter of occupational health. We do not have in Brazil a case of a person who had a health issue from using tiles or water towers with asbestos."

Let's take it one point at a time:

- 1) The fact that chrysotile asbestos is less harmful doesn't mean that it's harmless or even that it has a positive effect on people's health.
- 2) All forms and types of asbestos cause cancer, including pure chrysotile. This is the position of the following international agencies: IARC -- International Agency for Research on Cancer; WHO -- World Health Organization; ILO -- International Labor Organization; WTO -- World Trade Organization; INSERM -- the Institut National de Santé et de la Recherche Médicale, in France. And also Fundação Oswaldo Cruz (Fiocruz), in Rio de Janeiro, Brazil.
- 3) Asbestosis has a dose-response; the more the worker is exposed, the greater the chances of developing the disease.
- 4) On the other hand, mesothelioma is not dose-related. "It is a lie to say that there exists a threshold dose of asbestos exposure below which there is no chance of contracting mesothelioma or lung cancer. "Zero exposure to asbestos is the only way to protect people from asbestos-related cancer," warns Dr. Hermano de Castro. "Even if you are exposed for only a short period to a low dose of asbestos, you can still contract mesothelioma in the future."
- 5) It is not true that it is exclusively a problem for people working with the mineral. "Family members and people who live near the mines are at risk, as are those who experience environmental exposure," warns Fernanda Giannasi. For instance, mechanics in automotive shops, workers in civil construction (cutting tiles and screens), tile cutters or people living in homes with degrading asbestos tiles which release fibers into the environment.

“We have followed the cases of approximately 100 wives of former employees; five already have pleural plaques,” corroborates the occupational health physician Vilton Raile, from the Osasco Workers’ Health Reference Center (*Centro de Referência em Saúde do Trabalhador de Osasco*). Pleural plaques can cause shortness of breath, tiredness, back aches and a productive cough. The five were contaminated by washing their husbands’ clothes. “There’s one confirmed case of pleural mesothelioma,” adds Abrea president Eliezer. “This lady has already died and she got contaminated the same way as the other five wives.”

WORKERS’ HEALTH PROBLEM AND PUBLIC HEALTH PROBLEM

“Asbestos is not just an occupational health problem,” argues Hermano de Castro, the coordinator of the Center for Studies of Workers Health and Human Ecology at the Fiocruz, in Rio de Janeiro. “It’s a public health problem as well.”

Dr. Castro’s reasoning:

- 1) Epidemiological studies indicate that some of the people struck with mesothelioma have a history of direct, explicit exposure. The evidence shows that those people who did not have such exposure were environmentally exposed to asbestos.. The most susceptible people, even if exposed to low doses, are at risk of developing this malignant tumor.
- 2) Since there are people who contract mesothelioma from environmental exposure to asbestos, this becomes a public health issue.
- 3) It is obvious that occupational exposure to asbestos should be classified as a public health problem as well.
- 4) When workers or former employees exposed to asbestos get sick, they head to SUS, the Brazilian public health service, in search of treatment, and to National Social Security Institute (*Instituto Nacional de Seguridade Nacional -- INSS*), to claim social security. These are good reasons why the fallout from asbestos use in Brazil should be considered a public health issue and not merely an occupational health one.

THE PROOF OF THE DANGER IS PRINTED ON THE PRODUCT ITSELF

At this point, certain questions must be answered. We asked Fernanda Giannasi, who is the coordinator of the Citizens Network for the Banning of Asbestos in Latin America, to respond.

-- Nobody in my family works with asbestos. Why should we stop using asbestos-cement tiles, which are much cheaper and more durable, and which all our neighbors use?

Because asbestos, even in small doses, causes cancer. Go over to a store which sells construction materials and you will see the following warning on every asbestos-cement product: ***“When you cut or drill into this product, do not breathe the dust that you generate, because it could cause serious harm to your health.”*** The reason for that label is that when you cut or drill into a roof tile, hundreds of asbestos fibers are freed to float in the air. And the people who inhale this dust will not be just those who are doing the work, but everyone in the area. Furthermore, asbestos-containing material, over the years, has a tendency to erode and degrade, releasing asbestos fibers into your house and into the general environment as well. This is a risk that you should take seriously.



CANALETE 49: CONTAINS ASBESTOS: When you cut or drill into this product, do not breathe the dust, because it can seriously harm your health. ETERNIT.

-- But so many people work with asbestos and nothing happens to them....So many people lives in houses with asbestos roof tiles and they're doing just fine....

Nothing has happened so far. But it is impossible to guarantee that nothing will happen in the future. The most serious sicknesses take at least 25 years to develop, and sometimes as long as 50, as can happen with mesothelioma. Now we're in the year 2008, how can we be sure that the people who began to work starting in 1980 won't get sick? This statement is totally irresponsible....a nonsense, a frivolity. Those who were exposed in the 1980s probably won't start to get mesothelioma until around 2015 or 2025.

HIDDEN RISK, OMISSION AND THREAT OF DEATH

If asbestos causes cancer and we have been aware of how harmful it is since 1980, why hasn't it been banned all over the world?

“The asbestos industry has one of the world's most powerful lobbies. It reminds me of the tobacco industry,” says Joan Kuyek, of Mining Watch, a non-governmental organization in Canada, who is quoted in the French documentary *Slow Death by Asbestos*, directed by Sylvie Deleule. “The same kind of myth, same kind of science, same genre of complicity between industrialists, workers and governments in their way of acting to minimize risks.”

“I was a member of Internal Committee for the Prevention of Accidents (*Comitê Interno de Prevenção de Acidentes -- CIPA*), when I worked at Eternit. I took some courses on work-related diseases, but I found out only in 1995 that asbestos was carcinogenic,” says Eliezer de Souza. “Every two years we had chest X-rays. They never told us anything about the results. Doctor Wagner knew what was happening but hid everything from us. I myself had pneumonia and didn't even know the reason.”

The physician is Dr. Wagner José Meirelles. He was the chief company doctor at Eternit from about 1974 until 1995, when the Osasco plant shut down. After that, he was active in the Brazilian Asbestos Association (*Associação Brasileira do Amianto -- Abra*). Today he lives in Ubatuba, on São Paulo's north coast: “I remember Eliezer but I retired and don't want to talk about the subject. The workers saw me as a company person, but it wasn't true. I was responsible to set up all the controls not only for the health but to measure the dust in the work environment at the company.”

This reporter went on to contact Dr. Wagner José Meirelles:

-- In addition to Eliezer, other former employers said that they didn't find out that asbestos was carcinogenic until around 1995.... Is that true?

-- Since 1984/1985 they knew all about the risks of asbestos. Now if they think that their health was being harmed, they are free to seek justice through the legal system. That's their right...

-- At a debate in the São Paulo Legislative Assembly, when the first asbestos ban law was being discussed [it was approved in 2001], you asked to speak your piece and started to weep when you saw the former employees of the factory. Is that true?

-- No, I didn't weep. Fernanda Giannasi was accusing me of a cover-up. I thought she was being unjust, and I asked to reply. With a choked up voice, I asked all the workers to speak up, if they had anything against me. But nobody said anything.

-- According to Fernanda, in 1987 you already knew about six cases of asbestos disease which were not communicated to the National Social Security Institute (INSS). In 1996, you supposedly had said that many [asbestos] cases had passed through your hands and were communicated to Eternit's headquarters in Switzerland. And then the order came down that you should keep quiet about those cases, and that if people found out, they should be advised to pursue justice through the legal system. Can you confirm her account?

-- That is not true.

“Wagner [Meirelles] has said that he would deny everything if I revealed this information,” claims Fernanda. “My conscience is clear, because I warned him about his abominable action to hide the cases of asbestos related diseases. Unfortunately some doctors still contribute to the social invisibility of asbestos disease in Brazil -- what we call the ‘epidemiological silence’. They do this when they take care of those patients and don’t report them to the INSS or to the Ministry of Health, even though many times they are professionals working in free public health system (SUS). Isn’t this behavior unethical, immoral?”

Even a death threat was not enough to keep Fernanda quiet. In January of 2004 three inspectors and a driver of the Ministry of Labor and Employment (MTE) were murdered in Unaí, Minas Gerais state. Five days after these killings, Fernanda received an anonymous letter of intimidation.



Fernanda Giannasi

Photo by Raphael Falavigna

Fernanda has been dedicated to the asbestos cause since 1985. She is the major activist and source of information in this area in Brazil. Denis Hamel, director of the Chrysotile Institute of Canada, sent a letter to Francisco Dornelles, then Minister of Labor and Employment in Brazil, requesting that she should be “reprimanded and punished”. Fernanda is a Labour Inspector, based in the São Paulo regional office. In the documentary *Slow Death by Asbestos*, Hamel justifies his attempts of retaliation against Fernanda: “She is constantly lying and making exaggerated statements, which have a tremendously harmful effect on our industry.”

CONTROLLED USE IS IMPOSSIBLE; IT IS A COMPLETE ILLUSION

Fernanda Giannasi and the “Abrea oldies”, as the defenders of asbestos malevolently refer to the former employees and members of the Brazilian Association of the Exposed to Asbestos (*Associação Brasileira dos Expostos ao Amianto* -- Abrea), are starting to harvest the fruits of over a decade of battle. On June 4th, the Federal Supreme Court (*Supremo Tribunal Federal* – STF) ruled that the bill 12.684, which forbids the use of asbestos in the state of São Paulo, is constitutional.

“An historical victory for the right to health, to disease prevention and to a balanced environment,” evaluates Mauro Menezes, Abrea’s and the National Association of Labor Attorneys’ (*Associação Nacional dos Procuradores do Trabalho* -- ANTP) legal representative.

Until this decision was issued, according to Mauro Menezes, the defenders of asbestos could argue that municipal and state laws banning asbestos violated the principles of federalism, because there is already a federal law on asbestos which supersedes state laws. The problem here -- and there is a problem! -- is that a much more significant constitutional argument can be made that the use of asbestos, even controlled use, is an offense to the right to health, to the reduction of the risk of disease, to the social value of work, to a safe environment, as well as to the basic dignity of the human being.

“For the first time, the Federal Supreme Court (STF) eliminated all the preliminary and formal issues and got to the heart of the argument, based on acceptance of well-proven scientific researches,” says Menezes. “The STF concluded, after a careful examination of the evidence that the use of any type of asbestos -- because of its harmfulness to human beings -- was incompatible with an overriding issue which is guaranteed in our Constitution, which is the right to health and life.”

This was the second attempt to ban asbestos in the State of São Paulo. The first law, which was passed in 2001, was judged to be unconstitutional in 2003 by the STF in what is called a Direct Action of Unconstitutionality (*Ação Direta de Inconstitucionalidade* --ADIN). The court-appointed adjudicator in that case was Minister Maurício Corrêa. He was at that time also the elected President of the STF

(2001-2003). He retired in 2003 and since then, in his capacity as a lawyer, Maurício Corrêa has represented the National Confederation of Industrial Workers (*Confederação Nacional dos Trabalhadores da Indústria* -- CNTI). The CNTI is the parent organization of the National Asbestos Workers' Commission (*Comissão Nacional dos Trabalhadores do Amianto* -- CNTA); the CNTA is financed by the asbestos industry through the Brazilian Chrysotile Institute. Working for the CNTI, Maurício Corrêa has filed several so-called Direct Action of Unconstitutionality, the aim of which is to revoke ban asbestos rulings in the states of Rio de Janeiro, Rio Grande do Sul, São Paulo and Pernambuco. The State of Mato Grosso do Sul had its state law overturned by the STF in the same session which withdrew the first ban asbestos law in São Paulo on May 8, 2003.

“There are nine unconstitutionality suits (ADINs) awaiting trial,” says Menezes. “The asbestos industry is doomed in Brazil. The problem is that, while it lasts, lives will be sacrificed and that is implausible in a democratic society with a constitution like our own. After all, it is the Citizens' Constitution!”

Yet one question still remains to be answered: isn't the controlled use of chrysotile asbestos a realistic possibility?

“The best the industry can do is to reduce the levels of contamination inside the factories. They don't have any way of enforcing controls once the product leaves the factory and ends up in the hands of [builders] and the public at large,” explains Dr. Hermano de Castro, of Fiocruz. For example, in construction, asbestos cement products are often used to build roofs. Because of the high turnover of workers in the building and construction sector, the workers (in general “under the table”) don't have the slightest notion of the dangers of the products that they are cutting and drilling, which contain asbestos. And they end up breathing in those fibers without any [respiratory] protection. Analogous problems occur in people's homes.

“It is a problem of the industries which work with asbestos, alright,” charges Hermano de Castro. “They have the responsibility for all their chain of production: mining, production, and marketing. And how will they control the products' use by the population? It's impossible. Controlled use is a total illusion. A fallacy!”

“But then, if society decides for the substitution of asbestos by synthetic fibers, it will have to pay for that,” says Élio Martins. “More than an eventual supply crisis, our product will cost from 30% to 60% more than it does today.”

Out of curiosity, we checked out *London*, a store which sells construction materials and is located at the corner of Avenida Vicente Rao and Viaduto Washington Luis, near Congonhas Airport in the City of São Paulo. On Saturday, July 28 a 96-inch by 43-inch and 0.24-inc thickness asbestos-cement roof panel was selling for R\$27.80* (around 17

dollars). “A similar panel, made with synthetic fibers, sells for the same price,” said a *London* saleswoman.

“Banning asbestos will cause 170,000 to 200,000 people to lose their jobs,” said Adilson Santana of CNTA, the asbestos workers union. “Since when do construction materials stores only sell asbestos-containing products?” asks Fernanda Giannasi. “The figure of 170,000 to 200,000 workers cited by the asbestos industry includes all the workers in the over-the-counter retail sector, which sells thousands of different products, and also includes people who work in transport and construction (these jobs are not generated by the asbestos industry). Today the total of people who work directly in asbestos mines and mills totals is around 3,000 workers in Brazil.”

“Asbestos is time-bomb with a delayed effect; the only solution is to ban it completely,” said Aldo Vicentin, from the intensive care unit of the São Paulo Heart Institute, where he was trying to recover from mesothelioma surgery. He pleaded with this reporter to reinforce that message last week. He had another request as well: to show his post-op photo: “I want the world to know the suffering caused by asbestos.”

Aldo had his left lung, his diaphragm, his pericardium and his pleura removed. He didn't know, yet, but his colleague José Roncadin, 74, another of Abrea's directors, had just been diagnosed with pleural mesothelioma. He was never to know that. On Thursday, July 3rd, 9h30 a.m., the assassin fiber did the rest of its evil deed: it took him for good.

*** On July 1, 2008, when the story was released, 1 real was worth 0.62 dollar.**