

Wise up
about
asbestos



Trade unions
in collaboration

“THE PROBLEM IS ASBESTOS CAN BE LETHAL WHEN INHALED, EVEN IN SMALL QUANTITIES.



THIS BROCHURE HAS BEEN PRODUCED ON BEHALF OF 6F, TRADE UNIONS IN COLLABORATION. **TEXT:** HELÉNE GÖTBERG
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FACT/Asbestos is the collective name for a group of natural minerals. There is 'white', 'brown' and 'blue' asbestos, with 'white' asbestos being the most commonly used in Sweden. 'Brown' asbestos is used mainly in insulation foam. The word **asbestos** means **indestructible**.

Asbestos

IS PART OF YOUR WORKING DAY

» **IF YOU ARE READING THIS BROCHURE**, you probably work in the construction industry as an electrician, construction worker or painter. You may also be a caretaker, cleaner, plant worker or seaman. These professions have one thing in common: they are more likely to encounter asbestos in their daily work than other professional groups.

ASBESTOS HAS BEEN BANNED FOR MANY YEARS NOW. It was prohibited in Sweden in 1982. As a material it has some remarkable properties and was therefore commonly used in buildings. The problem is it can be lethal to breathe in, even in small quantities.

It is safe as long as it is encapsulated – it is when the material tears or disintegrates during demolition work that there is a problem.

BECAUSE IT IS SO HAZARDOUS, asbestos regulations are strict and there are detailed provisions about how material containing asbestos should be handled. All rebuilding or renovation work,

for example, must begin with a proper inventory. Despite this, people are being exposed to it far too often.

In the 1970s public debate made everyone aware of how hazardous asbestos was. This knowledge is now largely forgotten, despite the fact that a lot of asbestos remains in circulation.

THE PURPOSE OF THIS BROCHURE is to alert you to the fact that you may at some point come into contact with asbestos. The information in this brochure is not comprehensive, but it does outline the reasons why asbestos is so hazardous. It contains points to remember and what action to take when you suspect that asbestos may be present at your workplace. There is also information about where to turn for more information. ●

The Construction Workers' Union, Electricians' Union, Building Maintenance Workers' Union, Painters' Union and the Swedish Union for Service and Communications Employees

“ASBESTOS IS NOT HAZARDOUS WHEN IT IS ENCAPSULATED. IT IS WHEN THE ASBESTOS FIBRES LOOSEN OR FORM INTO DUST THAT YOUR HEALTH MAY BE AT RISK.





FACT/ In the 1970s numerous steps were taken to reduce the use of asbestos. The labour market parties in the construction industry agreed to impose strong restrictions on asbestos use in the construction industry. **Sweden was one of the first countries to prohibit the use of asbestos.** Many other countries followed suit and introduced prohibitions or strong restrictions on asbestos use.

The small particles

WITH THE BIG RISKS

» **DESPITE BEING BANNED** in Sweden since 1982, a lot of asbestos still remains in our residential and commercial buildings. It can also be found in old boats and products such as brakes. No one really knows exactly how much asbestos remains in circulation. This is why it is vital that you are constantly attentive when working inside buildings and boats that were produced before 1982.

BEFORE ASBESTOS WAS PROHIBITED, it was widely used. Asbestos has good technical properties which make it ideal for a wide range of applications. It is heat-resistant, has a high tensile strength and good sound proofing qualities. It is also easy to manage and simple to process. As a result, it has frequently been mixed with other substances and can be found in cement, plasters and adhesives.

ASBESTOS IS NOT HAZARDOUS to humans when it is fixed in place or encapsulated, it is when the asbestos fibres loosen or form into

dust that your health is at risk. That risk exists when you perform renovation or rebuilding work. When you come across broken materials or products, fibres may have loosened and become airborne.

ASBESTOS FIBRES ARE SMALL AND LIGHT. You cannot see them. You will not experience any discomfort when you inhale them. It also takes a long time before you notice the effects.

The dust and fibres remain airborne long after you tear the material. Asbestos fibres are hazardous because of their propensity to split lengthwise to form small needle-like fibres. Their needle-like shape and their slow rate of breakdown are main reasons they stay inside the body for so long. Thin fibres are more hazardous than thick fibres, particularly if they are resistant to breakdown inside the body.

You can often tell whether or not there is asbestos present but it is sometimes impossible to tell if a material contains asbestos. This is because it can be concealed. ○

“AS OPPOSED TO MANY OTHER IMPURITIES, ASBESTOS REMAINS INSIDE THE BODY FOR A LONG TIME BECAUSE OF ITS RESISTANCE TO BREAKDOWN.

Your health

MAY BE AT RISK

» **YOUR HEALTH IS AT RISK** when you inhale asbestos fibres. The small fibres penetrate into the lungs or other organs such as the abdominal cavity. The thinner the fibres, the deeper into your body they can go. Asbestos fibres cannot penetrate your skin, but they can end up on your clothes, which means that you risk inhaling the dust. As opposed to many other impurities, asbestos remains inside the body for long time because of its resistance to breakdown. The human body can break down both glass wool and stone wool, for example.

ASBESTOS IS THE CAUSE OF a number of diseases. Every year 110 to 120 people succumb to mesothelioma, a form of cancer of the pleural sack or peritoneum. This form of cancer has a 100% mortality rate. In this case, most sufferers contracted the disease before asbestos was

prohibited. The disease takes at least 20 to 30 years to develop. Sometimes even longer. Cancer can be caused by the even the smallest quantities.

THIS MEANS that the great majority of Mesothelioma* sufferers in Sweden were born before 1955. If we pull together to keep tabs on asbestos, none of us will ever have to worry about contracting an asbestos-related disease ever again.

Pleural plaques is another condition that affects people who have worked with asbestos. The asbestos fibres form scars on your pleura. On a chest x-ray they are visible as thick patches.

Pleural plaques do not normally produce any symptoms but are a sign that the person has inhaled asbestos.



FACT/ Asbestos has been used throughout history. **People have known it can be hazardous to your health since the beginning of the 20th century.** But what they did not always know was just how hazardous it was. That information became known in the 1950s and the early 1960s. The material was widely used in Sweden In the mid-1950s.

Not until the 1970s did the first reports appear about people who had worked with asbestos contracting different diseases, several of which were fatal.



PHOTO: PONTUS GRÄNS

ASBESTOSIS IS ANOTHER DISEASE that affects those who have been exposed to asbestos. It is a lung disease that is similar to silicosis and is the result of long-term exposure. The diagnosis is rare today. Lung cancer is another. Both these diseases can be fatal. Smoking and asbestos increase the risk of lung cancer.

However there is no such connection between smoking and mesothelioma.

**Some people probably contract mesothelioma for other causes than asbestos. These are unknown except for a rare mineral called erionitis.*

“ PRODUCTS AND MINERALS MANUFACTURED OUTSIDE THE EU CAN CONTAIN ASBESTOS.

BE ATTENTIVE IN THE FOLLOWING PLACES AND LOCATIONS

- * In buildings and boats constructed before 1982. Asbestos is permitted in other parts of the world, which means that products and materials manufactured outside the EU may contain asbestos. Always be extra attentive when working on renovation and rebuilding projects where the buildings were constructed in the 1950s and 1960s (Million Homes Programme) when asbestos was widely used.
- * Asbestos has been known to be injected directly onto the ceilings, for example, and can also be included or embedded in other materials. ●

ASBESTOS HAS BEEN USED IN:

- * Fire protection, thermal insulation, condensation insulation, noise reduction, reinforcement, pre-insulated mats, filler materials.

EXAMPLES OF PLACES:

- * Residential and commercial buildings and boats. In ceilings, walls, floors, boilers, tile stoves, chimney ducts, doors, ventilation ducts, supply air ducts, pipes, spark protection and boards.

EXAMPLES OF MATERIAL THAT CAN CONTAIN ASBESTOS:

- * General adhesives, tile adhesive, plastic, cement, filling, insulation foam, fibreboard, putty, filler, mesh, plugs, plaster and paint. ●

THE BIGGEST RISKS to your

THE BUILDING MAINTENANCE WORKERS' UNION:

MEMBERS OF THE Building Maintenance Workers' Union are particularly exposed when someone has accidentally damaged an old insulated drainage pipe or drilled into a fire door. In these cases, asbestos fibres can break loose and fibres become airborne. There is also asbestos on the insides of old flapper valves that have begun to disintegrate. Caretakers who perform light repairs can come into contact with asbestos when they drill into old tile adhesive.

There are also risks when replacing a toilet or drilling into floor material. It is common to find damaged areas in garbage disposal rooms. Garbage containers sometimes damage the asbestos cement sheeting when they are rolled in and out of the room and bump the wall cladding. There is also a certain risk of asbestos when cleaning indoor car parks.

THE CONSTRUCTION WORKERS' UNION:

THE CONSTRUCTION WORKERS' UNION has many professional groups in its organisation that come into contact with asbestos. The



FACT/ HVAC workers, people working with glass and sheet metal, removal workers, and insulation and demolition workers are some examples of groups that can encounter asbestos almost on a daily basis.

profession

risks are often greatest in Swedish Repair, Reconstruction and Retrofit projects (ROT). Builders, carpenters, HVAC workers, and glass and metal workers, removal workers, and insulation and demolition workers are some examples of groups that encounter asbestos virtually on a daily basis. *Read more on page 8 under “Be attentive...”.*

Specific cases where members often encounter asbestos include bathrooms, in windows and insulation material. It can be found in tile adhesives, general adhesives and under plastic flooring.

THE ELECTRICIANS' WORKERS UNION:

COME INTO CONTACT with asbestos mainly during renovation and rebuilding work. Electricians remove the electrical systems from the buildings, which are common risk areas. Specific areas are pipe insulation and pipe bends. But electricians can also be exposed when other professional groups perform demolition work. *Read more on page 8 under “Be attentive...”.*

There is also a risk of asbestos when replacing electrical components. Asbestos-clad cement sheets, for example, can frequently be found behind electricity meters and distribution boxes.

THE SWEDISH UNION FOR SERVICE AND COMMUNICATIONS EMPLOYEES (SEKO)

MEMBERS OF SEKO can come into contact with asbestos in the maritime industry, telecommunications, railways, energy industry and in certain cases when operating machinery.

MARITIME INDUSTRY:

IN SHIPS, ASBESTOS can sometimes be found in large quantities. It can be found in the walls, ceilings and in different types of insulation material. All professional groups can be exposed.

Insulation material in the engine room and on deck can be particularly problematic. You should also be attentive to spareparts that come from other countries where asbestos is not prohibited. This includes gaskets and brake bands and other items that often contain asbestos.

TELECOMS INDUSTRY:

IT USED TO BE COMMON TO “wrap” cables around basement water pipes. These contain asbestos, particularly the bends. They are frequently broken. Many older electricity meters are mounted on asbestos cement sheeting. New meters are often mounted on →

“ALWAYS BE EXTRA ATTENTIVE WHEN WORKING ON RENOVATION AND REBUILDING PROJECTS FROM THE 'MILLION HOMES PROGRAMME' WHEN ASBESTOS WAS WIDELY USED

→ the old base. Fire-sealing material contains asbestos.

RAILWAYS:

SIGNAL BOXES sometimes have asbestos cement sheeting (Eternit) on the walls where the electrical components are located. You may also encounter old insulated track joints. Most of them have today been replaced.

ENERGY:

ASBESTOS CEMENT SHEET WALLS (Eternit) can be found in switch boxes and you can also be exposed to the risk of asbestos exposure when performing maintenance work to district heating plants.

MACHINERY OPERATORS:

CAN COME INTO CONTACT with asbestos while performing demolition work on industrial and residential buildings.

PAINTERS

PAINTERS ARE particularly exposed when working alongside other professional groups in the construction industry. Unless asbestos material has been removed correctly, during rebuilding or renovation work, painters are also exposed to this dust. *Read more on page 8 under “Be attentive...”*

Painters can also be exposed to asbestos dust when painting over broken pipe insulation. And also when processing asbestos cement sheets (Eternit) through sanding, high-pressure washing or dusting, painters can be exposed to asbestos particles prior to painting. ●

UNION
MEMBER

“I am more observant at my workplace today”

Daniel Malmqvist works as an electrician at Imtech in Alingsås. He was exposed to asbestos a few years ago. He is not worried about his health but the event was a wake-up call. He is now more attentive to his work environment.

» A SWEDISH 'MILLION HOMES' HOUSING

project (most of which were originally constructed in the 1950s and 60s) was being rebuilt. Everything except the building frames was torn down. The electricians removed all the electrical components, i.e. old cables, while the demolition work was in progress. They were efficient and work was going smoothly. There was a lot of dust. After a while, asbestos was discovered in a window seal that had been removed. This meant that everybody who had



“Every day, valuable jobs are being performed by people working in conditions so poor that it is hard to believe that this is Sweden. Many unregistered people end up removing asbestos without wearing protective equipment.”

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been inside the building that day had inhaled asbestos dust. Work was halted and the asbestos was removed. The reason for the asbestos was that the construction firm had been careless about performing a proper asbestos inventory before work started. The employees could hardly have known about the asbestos and trusted that the inspection was performed beforehand. Electrician Daniel Malmqvist was one of the workers who was exposed.

“The people responsible apologised. We were called to a big meeting where they explained what had happened,” he says.

HE ALSO underwent a chest x-ray. If things were going to change later it would good to know that his lungs were at least healthy when it happened. It took a long time for the effects to manifest themselves. It was a tough time for Daniel when it happened, and he spent a lot of time talking to workmates and relatives, but today he is not too apprehensive about his health. Furthermore he has not lost confidence in the people responsible for the work environment and trusts that whatever needs to be done will get done. Today he is more attentive to his work environment and more cautious. Both when it comes to asbestos and other types of dust.

“Dust is a major problem for us. Nowadays I am quicker to switch on the dust trap,” he says.

IN HIS VIEW, it is important to be attentive to any shortcomings and not to be afraid to ask ‘inconvenient’ questions. It is also vital that everyone pulls together to keep an eye on things. The older employees must also share their experiences about the risks involved with the dust.

“It is up to us”.

But sometimes even they have problems doing it correctly.

“The main cause of carelessness is stress. We do not always have the time to think first and that is when things can go wrong,” he says. ●

“EVEN IF YOU ARE ONLY A LITTLE SUSPICIOUS ABOUT THE PRESENCE OF ASBESTOS YOU SHOULD REQUEST THAT A SAMPLE BE TAKEN. IT IS BETTER TO CHECK ONCE TOO OFTEN THAN ONCE TOO SELDOM.”

SAFETY
REPRESENTATIVES



“Have the courage to speak up and risk being wrong about asbestos”

Cecilia Samuelsson believes that people must try to overcome their fear of requesting asbestos inspections. Even if your suspicion proves to be unfounded you have still made the right decision.

» **CECILIA SAMUELSSON** is both the local and regional safety representative for the Construction Workers' Union. Many of its members are caretakers and cleaners. Every now and then she runs into asbestos during the course of her work. When an old cooking stove or washbasin is being replaced, for example. When replacing an item you may need to drill into tiles which could contain



"We sometimes receive reports from our members that clients circumvent the rules about asbestos removal. They contract foreign companies who do the work over a weekend, very quickly and often carelessly," says Hans Tilly, former chairman of the Union of Construction Workers."

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asbestos. She has noticed that many members are reluctant to bring up the subject of asbestos.

"Even when they suspect that there is asbestos, they do not have the courage to speak up without being absolutely certain," she says.

RECENTLY SHE SPOKE TO A member who for several years had had misgivings about the possible presence of asbestos in a boiler room. But he did not say anything for fear of losing his job. It turned out that his misgivings were justified; a sample showed that there was indeed asbestos in the room and work was halted. It is important for people to learn to speak their minds.

"Even if you are only a little bit suspicious about the presence of asbestos you should request that a sample be taken. It is better to check once too often than once too seldom." she says.

EVEN IF YOUR SUSPICIONS are wrong and no asbestos is found, you have still made the right decision. You are not being a problem but are simply looking out for your own and other people's health. As asbestos is not visible to the naked eye, you need to take samples in order to be sure. Not even the experts can always tell. According to Cecilia Samuelsson fear of losing your job or fear of reprisals is common when it comes to asbestos. But it is unfounded. In her experience, most employers are very accommodating if there is a suspicion that asbestos may be found or if it is discovered. ●

STRICT REGULATIONS ABOUT HANDLING ASBESTOS

Because it is so hazardous, the asbestos regulations are strict and there are detailed provisions about how material containing asbestos should be handled. All rebuilding or renovation work, for example, must begin with a proper asbestos inventory.

»If you think there may be asbestos present, a sample needs to be taken.

If you discover asbestos, the area needs to be cleaned in a safe manner. Before the renovation begins, all asbestos must be removed and cleaned or encapsulated and correctly labelled.

Only companies with a permit from the Swedish Work Environment Authority are allowed to perform asbestos removal work. Before cleaning, the company must register with the Swedish Work Environment Authority and provide a comprehensive description about the steps that it takes.

There is a lot of corner-cutting in the asbestos removal business, although no one really knows the extent of it. ●

“GENERAL ADHESIVES, TILE ADHESIVE, PLASTIC, CEMENT, FILLING, INSULATION FOAM, FIBREBOARD, PUTTY, FILLER, MESH, PLUGS, PLASTER AND PAINT.

ASBESTOS
REMOVAL
WORKER

“I encourage work now

Among larger construction firms there is great awareness about the risks of asbestos, but we also see a lot of shoddy work. Some companies in the industry have neither the appropriate equipment nor the correct knowledge, says Jimmy Sundberg, asbestos removal worker at Industri & Skadesanering AB.

» **AN ASBESTOS CLEARANCE** job is in progress in the basement of an apartment block. Some of the tenants have accidentally jolted the asbestos in the ceiling while putting their belongings into their storage compartments. Now everything needs to be cleaned. The entire storage area also needs to be vacuumed. The asbestos in the ceiling is encapsulated and clearly labelled. Jimmy Sundberg and his colleagues are hard at work. The dust has even penetrated the inside of drawers and getting rid of it is not an easy task.

“To prevent the dust spreading outside the storage area, the area is encapsulated in plastic. The work site is also put into negative pressure

to prevent the dust from spreading to the other rooms,” he says.

THEY ALSO HAVE TO WALK THROUGH A

3-compartment access system. In one compartment they get changed and put on special protective clothes and a compressed air mask, which provides them with clean air. The air inside the work site is purified with a ventilator equipped with a HEPA filter.

According to Jimmy Sundberg, most major construction companies are aware of the risks with asbestos. In their procurements they require that those performing the cleaning work have the correct expertise and the appropriate equipment. But every now and then Jimmy Sundberg sees shoddy work. Recently they had to clean three apartments after a construction company had renovated a bathroom that contained asbestos. The dust had spread through the ventilation shaft to the other flats. The company had a permit to perform asbestos removal work and they said that they had done plenty of these kinds of jobs before. But



“The current renovation trend means that tonnes of old asbestos is being torn daily, presenting a hazard to public health. Usually out of ignorance. But a considerable portion, almost half according to serious cleaning firms, simply ignore the rules.”

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ter shoddy and then”



PHOTO: PONTUS GRÄNS

when we checked, they never registered with the Swedish Work Environment Authority, which they are required to do, he says

He suspects that in some cases, companies cut corners due to ignorance about the dangers of asbestos. They just hope for the best. In other cases it could be that the asbestos is concealed.

To bring about change and increase asbestos safety at the workplace it is necessary for all companies to impose stricter requirements. In this context, planning is everything.

“Stricter requirements and tighter supervision of asbestos removal companies are also a must,” he says. ●

“THINK BEFORE YOU ACT. TODAY WE KNOW A LOT MORE ABOUT PREVENTING EXPOSURE TO ASBESTOS – WHAT WE CANNOT DO IS REPAIR THE DAMAGE AFTER IT IS DONE.

CONTACT THE FOLLOWING PEOPLE IF YOU SUSPECT THE PRESENCE OF ASBESTOS:

- * Contact your employer if you suspect the presence of asbestos.
- * If you work on a construction site or rebuilding project, you and your employer can jointly contact the work environment coordinator.
- * You can also turn to your safety representative for help and support.
- * You can also contact someone else in your trade union organisation for help.
- * If you are only slightly suspicious about the presence of asbestos you should request that your employer takes a sample. If your request is ignored, do not hesitate to contact your safety representative or other person in your trade union organisation.

USEFUL THINGS TO KNOW ABOUT ASBESTOS

- You have a legal right to a safe workplace and not to be exposed to asbestos.

//SWEDISH WORK ENVIRONMENT ACT//

- Your employer is responsible for your working environment. They must always perform a risk assessment before you begin working at a workplace.
- A property owner must always perform an inventory prior to renovation.
- Getting the results of an asbestos sample test can take anything from one hour to one day.
- Removing asbestos requires special training and the contractor needs to be approved by the Swedish Work Environment Authority.

- The Swedish Work Environment Authority's provisions about asbestos, AFS 2006:1, contain detailed regulations about asbestos and how to dispose of it.
- Think before you act. Today we know a lot more about how to prevent exposure to asbestos – what we cannot do is repair the damage after it is done.
- Find out more: www.av.se/teman/asbest (Swedish only)
- Tell your employer about how a serious asbestos removal procurement is conducted. Please use the Swedish Environmental Research Institute's form. Search at: www.bygg.org

SOURCES:

Elinstallatören issue 9/2012 Interview with **Mikael Södergren** CEO of Industri & Skadesanering. Interview with **Anders Englund**, former chief physician at Bygghälsan and head of department at the Swedish Work Environment Authority. Interview with **Bengt Järholm**, Professor, Chief Physician, Umeå University. *Asbest Arbeta på rätt sätt* Prevent 2009. *Asbest* Swedish Work Environment Authority. *Asbestrivning pågår* Bygghälsan 1986.



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