By Sarah Hender

A KITCHEN TO DIE FOR

As a young man he learnt to be a stonemason. Who knew the trade might kill him?

Photography Justine Walpole

This time last year Phil Beckett was running a half marathon. Now he sits in his doctor's surgery staring at the scan of his lungs, as the doctor's words wash over him: "shocked", "serious", "progressive". His mind has gone blank and his wife Carley asks the questions he should ask. All Beckett can see are their young sons.

The 35-year-old from the Gold Coast is facing the prospect of a premature death from a disease that has been known about since ancient times but has more recently re-emerged – silicosis. A disease he contracted just from doing his job. A stonemason for 15 years, he cut and shaped engineered stone, creating shiny benchtops for new kitchens. Beckett says all but one of his 20 or so workmates have received the same diagnosis and they are watching each other get sick. One has already died. Stonemasons in their 20s and 30s are sitting in surgeries around the country hearing the same news.

They're not the only ones who are shocked. Before 2015, when the first diagnosis of a worker in this industry was made, a silicosis case was rare, something a doctor was likely to encounter once in a decade, if at all. But initial screening of several stonemasonries in Queensland in August last year led to a disturbing revelation: 30 per cent of the workforce (12 out of 34) had the disease and more than half of them suffered the most severe form, known as progressive massive fibrosis – the same diagnosis that Beckett received. If these numbers are extrapolated nationally, more than 1000 people in Australia are affected by the life-threatening disease. So far, 260 cases have been diagnosed and free health screening has only just begun.

"Although 30 per cent sounds quite high out of an entire workforce to develop an irreversible scarring lung disease, based on my experience, I think that's what we're going to see, if not worse," says Dr Ryan Hoy, respiratory physician at Melbourne's Cabrini Hospital and spokesperson for the Thoracic Society of Australia and New Zealand.

The speed at which silicosis has hit this industry has meant the disease has slipped under the medical profession's radar. And the manner in which this new form of accelerated silicosis progresses means that even though a person may appear clinically well, radiologically they can be at the end stage of the disease. In the

Diagnosis: Phil Beckett

absence of symptoms, a doctor may not know that a person has the condition unless a full occupational history indicates exposure to silica. There are similarities with the asbestos crisis that hit miners and construction workers in the 1970s but silicosis has an added punch: the shorter lag time means tradesmen are being diagnosed much earlier, often at the beginning of their working lives.

What doctors are asking now is: how can this have happened again? "Silicosis is one of the oldest known lung diseases," Hoy says. "It was known to cause lung disease before tobacco smoke was known to be a problem, before asbestos was known to be a problem, so how it has become such a major health crisis is just unfathomable."

"I've been a tradesman all my life. It's not like I can just fall into another job"

Fears: Beckett with wife Carley and sons Xander and Easton

Nearly a quarter of Earth's crust is made of quartz, the most common form of silicon dioxide. Break it and it releases silica dust, which can be lethal to humans. This superfine dust evades the body's usual defence mechanisms – we can't blow our noses or cough it out. Instead, it accumulates deep in our lungs, causing a fibrosing scarring reaction in the tissue. Symptoms include coughing and shortness of breath and, in progressive cases, it can lead to premature death.

Experience with silica dust (and asbestos) in the past has shown that it takes a long time to accumulate and damage the lungs; historically, workers didn't develop dust-related diseases until they were in their 60s or 70s. Increased awareness, implementation of occupational dust regulations and, in the case of asbestos, its eventual banning reduced exposures to the extent that these diseases were considered obsolete.

But along came engineered stone – also known as artificial or manufactured stone, a composite material made of crushed stone bound with adhesive – which came onto the Australian market in the early 2000s, imported from countries such as Israel, China and Italy. Before this, stonemasons had processed natural stone such as marble and granite for kitchen and bathroom benchtops. The difference in the material is the silica content: marble typically has three per cent and granite 30 per cent while engineered stone has more than 90 per cent. The dust released from the processing of engineered stone is almost pure silica, which explains the rapid nature of the disease's progression. High exposure in a short time is all it takes.

About the time Phil Beckett started his stonemasonry apprenticeship 20 years ago, engineered stone, attractive and cheap, became the favoured product of home renovators. "You can have the product any way you want, it can be mass produced, there is a huge amount of patterns that can be imposed on it and it is very non-porous due to its density," explains Margaret Kent, a dust diseases lawyer with Slater and Gordon, Melbourne, the law firm that has launched a class action against the manufacturers. Kent is in no doubt about where responsibility for this crisis lies: "This is not a new disease but this is a new product which has raised and created an unknown level of risk for reasons that are very obvious and very foreseeable and the manufacturers were in the best position to know," she says.

There were some warnings about its use from manufacturers but, it's alleged, they were contained in technical data sheets – not the kind of clear instructions that a worker dealing with the product was likely to see. The main warnings provided related to the danger of lifting the stone pieces, which can weigh up to 300kg.

Occupational health and safety laws require dust protection measures and health screening where there is likely to be a high degree of exposure to silica, a listed hazard. The number of people now being diagnosed with silicosis indicates that we've been slack in ensuring compliance with regulations. According to Hoy, health screening has not been provided for 20 years.

Beckett can't recall a regulator ever attending any of his work sites to check on compliance. He says the only dust protection measures used in the factory were industrial fans, which were intended to blow the dust out of the factory but were effective only in blowing it into their faces. Beckett recalls that he and half a dozen of his workmates would line up beside each other cutting and grinding slabs of stone, spraying dust onto themselves and each other all day. "Some days it was so dusty you couldn't see from one end of the factory to the other," he says.

He had heard of silicosis but neither he nor his colleagues knew of anyone who'd ever had it. It was never considered a concern and no one wore personal protection masks; neither did they cut the stone wet in order to dampen down the dust.

The Australian Engineered Stone Advisory Group (AESAG), the industry body set up to represent the manufacturers, claims that cutting engineered stone is safe when done according to current workplace regulations and recommended safety standards. In response to the increasing number of silicosis cases, the industry body has introduced a health and safety accreditation program that requires proof that any customer-supplied products have complied with all state or territory health and safety guidelines.

Safe Work Australia CEO Michelle Baxter agrees that occupational health and safety laws provide all the protection necessary to keep workers safe. The Government's chief medical officer, Professor Brendan Murphy, also believes silicosis is entirely preventable if appropriate workplace health and safety measures are implemented. "The recent emergence of silicosis has resulted from the practice of workers cutting engineered stone without the use of water and without appropriate respiratory protection," he says.

But can we be sure these measures adequately protect workers today? Darren Greenfield, state secretary of the Construction, Forestry, Maritime, Mining and Energy Union, which is responsible

for the industry sector, thinks not. "There is no safe exposure limit to the silica in these products," he says. The CFMMEU regards engineered stone as the new asbestos and is calling for a ban on the product. Greenfield's nightmare is a repeat of the damage asbestos had caused by the time it was finally banned in 2003.

A National Dust Disease Taskforce, consisting of medical professionals, researchers, industry figures and government officials, was announced by the Federal Government in July to develop a national approach for the prevention, early identification, control and management of dust diseases. An interim report is due at the end of the year and its final report and recommendations by the end of next year. As part of its response, the taskforce is looking at regulatory arrangements to ensure safe work environments. It is also developing a national register of all new cases and the Federal Government is funding research into prevention, diagnosis and treatment options. But because safe work practices are a state-based responsibility, each state is addressing the problem differently and in their own time.

NSW, criticised for a slow response, has moved to halve exposure standards in the face of calls by the Greens for a ban on manufactured store goods. Queensland and Victoria have announced immediate bans on uncontrolled dry-cutting of engineered stone, with South Australia following suit. Queensland has recently developed a new code of practice, clarifying all safety measures needed to comply with regulations and penalising businesses that don't comply. Victoria, with the support of WA and the ACT, is advocating for a reduction to the silica workplace exposure standard from 0.1mg to 0.02mg per cubic metre over an eight-hour day (NSW is moving to 0.05mg). This draws a line in the sand about what experts think will be a safe level.

But as Dr Graeme Edwards, an occupational physician from the Gold Coast and a member of the national taskforce, says: "It doesn't matter what the line in the sand is if you don't police it."

"There is no safe exposure limit to the silica in these products"

For physicians such as Hoy and Edwards, the hardest thing is that there is no treatment to stop the progression of this disease once diagnosed. A lung transplant may be possible for the right patient but that is an option for the end stage of the disease and only if one is available. "It's very hard to sit here and diagnose somebody with a potentially progressive lung disease and not be able to provide a treatment option," says Hoy. But that shouldn't stop workers getting screened, he stresses. A diagnosis may not mean a life sentence; there are severe cases but mild early silicosis doesn't necessarily progress. The most important thing is to reduce exposure immediately. The patient should be closely monitored and get a general health assessment to ensure they are living healthily, not smoking and not being exposed to chemicals or other irritants.

Of course, reducing exposure has many other consequences, as sufferer Beckett knows well. He stopped working as a stonemason a few years ago and at the time of his diagnosis in August this year was working for a company doing spray-painting and welding. That job presented potential health problems from dust and chemicals in the workplace, the two things his doctor had advised him to avoid. Nevertheless, following his diagnosis Beckett went back to his job – but he stopped work several months later after experiencing severe anxiety brought on by seeing dust and chemicals around him. For a man who has never before suffered from anxiety, Beckett realised he was in the midst of a nervous breakdown. He sought help and is still supported by a psychiatrist and a psychologist. He also suffers insomnia due to constant worry about his wife Carley, 32, and sons Xander, four, and Easton, two, and the fear of not being able to see his boys grow up.

Dealing with the stress of her husband's health and caring for their two young sons proved too much for Carley, who gave up her work as a pharmacist and is in the process of selling her business. "We needed to simplify everything basically to reduce as much stress as we can while we get to know his condition and learn more about it while our future starts to take shape," she says.

Life is now lived between reviews of Beckett's condition every few months – a game of "wait and see". A prognosis is difficult when doctors have only limited experience with this type of accelerated silicosis. Five years has been mentioned and possibly another five if the next 12 months goes well. His next review is due just before Christmas and the anxiety is building again: every time he coughs or suffers shortness of breath he wonders if the disease is progressing. "Everything I feel in my chest, I wonder what it is."

Simplifying their lives has helped reduce the family's emotional stress but it has taken a financial toll. Beckett is on WorkCover but the payments are less than half what he used to get and will reduce over time. Carley has some income protection and the proceeds of the sale of her business will pay off their accumulated debt. Their focus now is on spending as much time as they can with family and friends and keeping things as normal as possible.

Beckett hasn't wanted to think about a career change but he knows that time is coming. He wants to see what the next scan shows and assess what his future holds then. If the news is good, he knows his work choices are limited. "I've been a tradesman all my life. It's not like I can just fall into another job that doesn't involve working with my hands. It will be hard."

He looks back on a time long ago when he was a 17-year-old apprentice stonemason just starting out, and recalls something one of the older workers said to him as engineered stone started coming through the factory: "Be careful with this stuff, because you don't know what it can do." ●

Unsafe practice: stonemason at work

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