

EXHIBIT 49

Message

From: Andy Kawczak [andyk@4taconic.com]
Sent: 7/14/2011 1:44:08 PM
To: 'Andy Kawczak' [andyk@4taconic.com]
Subject: teflon/pfoa stuff

Teflon component linked to arthritis Health »

By Eric Schulz
NEW YORK | Wed Jul 13, 2011 11:14am EDT

NEW YORK (Reuters Health) - High blood levels of a man-made chemical used in non-stick coatings were associated with a raised risk of arthritis in a large new study of adults exposed to tainted drinking water.

Researchers found that people with the highest levels of perfluorooctanoate (PFOA) in their blood were up to 40 percent more likely to develop arthritis than people with lower blood levels more typical of the general U.S. population.

Dr. Kim Innes of the School of Medicine at West Virginia University and colleagues used data on nearly 50,000 adults living in areas of Ohio and West Virginia where a chemical plant had contaminated water supplies with PFOA and perfluorooctane sulfonate (PFOS), both chemicals widely used in non-stick and stain-resistant coatings.

Both chemicals are "persistent organic pollutants," meaning they remain in the environment and in the human body for years. Both have also been shown to affect human and animal immune systems and metabolism, including functions such as inflammation that are linked with arthritis.

Arthritis is a degenerative joint disease characterized by pain, stiffness and bone damage that affects some 27 million Americans.

To see whether there was a connection between the chemicals and arthritis risk, Innes' team looked at people being monitored as part of a larger effort known as the C8 Science Panel, established following the settlement of a 2001 class-action lawsuit against DuPont Chemical.

A DuPont plant in Washington, West Virginia, released PFOA, PFOS and other chemicals into the air, which eventually contaminated drinking water.

Overall, nearly 8 percent of the study participants were found to have arthritis. People with the top-25 percent highest blood levels of PFOA were about 20 percent more likely to have arthritis than people in the bottom-25 percent.

Once the researchers adjusted for a variety of factors including, age, weight, socioeconomic status, gender and military service, the people with the highest PFOA blood levels were 40 percent more likely to develop arthritis than those with the lowest levels.

Somewhat unexpectedly, the authors also found the opposite to be true for PFOS. People with the highest blood levels of PFOS were 25 percent less likely to be diagnosed with arthritis than people with the lowest levels. Innes speculated that this may stem from an inflammation-reducing effect of PFOS.

The connection between PFOA and arthritis was strongest in people who were younger and not obese. Since age and obesity are two known risk factors for osteoarthritis, that finding strengthens the apparent link, the researchers note.

Still, the design of the study cannot prove that arthritis is caused by PFOA exposure, or prevented by PFOS exposure, cautioned Dr. Kyle Steenland, an epidemiologist at the School of Public Health at Emory University in Atlanta, Georgia, and a member of the C8 Science Panel. However, a viable alternate cause for the study findings has not been proposed, Steenland acknowledged.

Innes and her colleagues also note that the 8 percent rate of arthritis reported by participants in this study is actually lower than the national average for adults -- a difference they attribute to underreporting of arthritis by the study participants. More cases would not have likely changed the results, they wrote.

Given the many thousands of people in Ohio and West Virginia who were exposed to the chemicals in their drinking water, it is important to continue to monitor the health of the affected population, Steenland said.

SOURCE: bit.ly/obZ1fz American Journal of Epidemiology, online June 27, 2011.

Message

From: Larry Carroll [larryc@4taconic.com]
Sent: 1/25/2012 6:06:13 PM
To: andyr@4taconic.com
Subject: PFC Study

Andy,

I received a call from Doug Hayes yesterday around 4pm -- he read a written statement from DuPont in anticipation of this finding being released today. DuPont was anticipating a good amount of media coverage - NBC was the first to mention this on their nightly news last night at 6:30pm.

Larry

January 24, 2012

C8 may make vaccines less effective, study says

By Ken Ward Jr.

The Charleston Gazette

Advertiser

CHARLESTON, W.Va. -- Researchers have found that children exposed to the toxic chemical C8 may experience reduced effectiveness of childhood vaccinations, according to a significant new study being published Wednesday in the Journal of the American Medical Association.

The study discovered lower levels of antibodies that vaccines provide to fight infections among children with elevated exposures to C8 and similar chemicals that have been widely used in nonstick food packaging, stain-resistant textiles, nonstick cookware and water-resistant clothing.

Harvard University researchers warned that the results, if replicated in future studies, could indicate that perfluorinated compounds, or PFCs, are related to much broader immune system problems beyond the two vaccines they studied.

"These findings suggest a decreased effect of childhood vaccines and may reflect a more general immune system deficit," wrote Dr. Philippe Grandjean, lead author and an adjunct professor of environmental health at the Harvard School of Public Health.

Scientists who are following C8 research cautioned that this is the first human study to examine the issue, and that it's too soon to say if PFC exposure is actually causing the decreased vaccine levels.

"If this ends up being confirmed, if these chemicals really do reduce the ability to fight off certain infections, then the concern is that the human immune response is affected," said Dr. Alan Ducatman, dean of West Virginia University's School of Public Health and co-author of several previous C8 papers.

Grandjean and his colleagues compared vaccine levels and C8 blood concentrations among 656 children born in the Faeroe Islands from 1999 to 2001, with follow-up investigations performed in 2008. The Faeroe Islands is a fishing community in the Norwegian Sea. The area's marine food diet is associated with PFC intake, and the government-run health-care system there provides a wealth of detailed data making such studies easier to conduct.

The study focused on vaccines routinely given to children to prevent tetanus and diphtheria.

Researchers found that prenatal exposures to PFCs, measured by chemical concentrations in the mothers' blood, were associated with lower levels of the tetanus and diphtheria vaccines. They found similar associations when comparing postnatal PFC exposures and vaccine levels.

For example, at a doubled postnatal exposure, the overall vaccine concentration at age 7 was approximately halved.

Children with twice as much C8 in their blood were more than four times more likely to have vaccine concentrations that were "below a clinically protective level," according to the study.

"If the associations are causal, the clinical importance of our findings is that PFC exposure may increase a child's risk for not being protected against diphtheria and tetanus, despite a full schedule of vaccinations," the study authors wrote.

The authors explained that vaccine effectiveness relies on the proper functioning of the body's immune system, and that a link between PFC exposure and vaccine levels could also reflect a more general problem with immune system function.

"For this reason, the PFC-associated decreases in antibody concentrations may indicate the potential existence of immune system deficits beyond the protection against the two specific bacteria examined in this study," they wrote.

The new paper comes after December's release by an unrelated three-person team of scientists of a "probable link" finding between C8 and high blood pressure among pregnant women -- the first major conclusion of the C8 Science Panel's six-year study of the DuPont Co. chemical.

Panel members had also said they viewed evidence as "insufficient" to conclude chemical exposure was related to birth defects, pre-term births, low birth weight, miscarriages and stillbirths.

The panel's work is part of a class-action lawsuit settlement between DuPont and Mid-Ohio Valley residents whose water was contaminated with C8 by DuPont's nearby Washington Works plant.

C8 is another name for perfluorooctanoate acid, or PFOA. In West Virginia, DuPont has used C8 since the 1950s as a processing agent to make Teflon and other nonstick products, oil-resistant paper packaging and stain-resistant textiles.

DuPont and other companies have reduced their emissions and agreed on a voluntary phase-out of the chemical, but researchers are still concerned about a growing list of possible health effects and about the chemical's presence in consumer products, as well as continued pollution from waste disposal practices.

David Savitz, a Brown University scientist and panel member, said that the new Harvard study found "bigger effects than we're seeing at much higher exposure levels" than his group has so far pinpointed.

The C8 Science Panel has focused on potential health effects among Mid-Ohio Valley residents who, because of drinking water exposure to C8 and living near the DuPont plant, have far more C8 in their bodies than the average American.

Faeroe Islands children who were part of the Harvard study appear to have lower levels of PFCs in their blood than U.S. children, meaning the study results could be even more important for Americans, Savitz said.

"The biggest concern is not for these potential diseases, but whether this suggests a broader immune response," Savitz said. "That would suggest a greater and broader risk of infection and have a broader array of health consequences."

Reach Ken Ward Jr. at kw...@wvqazette.com or 304-348-1702.

Message

From: Andy Kawczak [andyk@4taconic.com]
Sent: 3/20/2009 1:35:24 PM
To: Scott Fein [sfein@woh.com]; Janis Fallon [Jfallon@woh.com]
Subject: c8 stuff -fyi

via Charleston Gazette

March 20, 2009

C8 Science Panel finds link to immune changes

Exposure to the toxic chemical C8 appears to be linked to changes in the human immune system, according to the latest findings of a scientific panel studying the chemical.

By Ken Ward Jr.
Staff writer

CHARLESTON, W.Va. -- Exposure to the toxic chemical C8 appears to be linked to changes in the human immune system, according to the latest findings of a scientific panel studying the chemical.

The three-person C8 Science Panel found "several significant associations" between the level of C8 in people's blood and the levels of disease-fighting antibodies.

Science panel members cautioned that they did not yet know if the changes in antibodies were caused by increased C8 or not. C8 levels and antibody levels were measured at the same time, and the panel is doing follow-up studies to try to get more answers.

"While this cannot be directly interpreted as indicating an increase in disease risk in this population, it warrants further investigation," the Science Panel said in its report, filed Thursday in Wood Circuit Court.

The panel's findings mirror those made public nearly a year ago by researchers at West Virginia University, who are examining the same data. Both studies are funded by major portions of a \$107.6 million lawsuit settlement paid by DuPont Co. in a suit alleging the company poisoned Mid-Ohio Valley residents' water with C8.

In one study, the C8 Health Project, residents gave blood and detailed medical histories to try to give researchers a huge database from which to consider C8's impacts. WVU researchers are analyzing that data and have been making some preliminary findings public.

In the other study, three experts are trying to determine if C8 is linked to adverse health effects. Their conclusion will be used to decide if DuPont must fund a medical monitoring program for residents who drank contaminated water.

Previously, the Science Panel reported that people with higher levels of C8 in their blood tended to have higher cholesterol levels. The panel also reported that Parkersburg-area residents had an average of nearly six times more C8 in their blood than the average U.S. population. The panel said it has so far found no link between C8 exposure and diabetes.

In January, the Science Panel also reported that residents with higher C8 levels in their blood tended to have more uric acid, a bodily waste that has been linked to hypertension and other cardiovascular diseases.

In West Virginia, DuPont has used C8 since the 1950s at its Washington Works plant south of Parkersburg. C8 is a processing agent used to make Teflon and other nonstick products, oil-resistant paper packaging and stain-resistant textiles.

Around the world, researchers are finding that people have C8 in their blood at low levels. People can be exposed by drinking contaminated water, eating tainted food, or through food packaging and stain-proofing agents on furniture or carpet.

Evidence is mounting about the chemical's dangerous effects, but regulators have yet to set a binding limit for emissions or human exposure.

Two recent studies have linked C8 exposure to reduced fertility in women and declining sperm counts in men.

Reach Ken Ward Jr. at kw...@wvgazette.com or 304-348-1702.

Message

From: Andy Kawczak [andyk@4taconic.com]
Sent: 7/1/2011 2:01:12 PM
To: 'Fein, Scott' [SFein@woh.com]
Subject: PFOA related -fy]

Via Charleston Gazette

C8 exposure linked to osteoarthritis

June 30, 2011 by Ken Ward Jr.

The folks at West Virginia University's C8 Health Project just keep churning out important new papers about the potential impacts of the toxic chemical DuPont for years used to make its prized Teflon products.

Just this week, Drs. Kim Innes and Alan Ductman, along with others, had a paper in the respected scientific publication the American Journal of Epidemiology.

The paper reports, apparently for the first time, a significant association between exposure to C8 and the development of osteoarthritis, a degenerative joint disease and the most common form of arthritis.

Interestingly, the relationship between chemical exposure and the disease was significantly stronger among younger people and non-obese adults. Also interesting is the fact that the researchers found a negative association between PFOS exposure and osteoarthritis.

The study is based on the C8 Health Project's work looking at the data from roughly 70,000 residents of the Mid-Ohio Valley who gave blood samples and medical histories to the project, funded by money from a legal settlement between the residents and DuPont.

Researchers concluded:

... We found a significant, positive, linear association between PFOA and reported diagnosis of osteoarthritis and a significant negative association between PFOS and osteoarthritis. If replicated in prospective studies, these findings could have substantial public health implications and may inform future studies regarding possible mechanisms underlying the development and progression of this important and common chronic disorder.

This study comes on the heels of another major study of C8/PFOA, published in the journal Environmental Health Perspectives and reported on here by the great Marla Cone:

... Scientists with three federal agencies who studied mice exposed in the womb to a chemical used to make Teflon found delayed breast development and impaired lactation. The effects were found in the mice at the concentrations detected in the water supply of an Ohio town near a DuPont Co. plant that uses the chemical, known as PFOA. Water supplies are not routinely monitored for it.

"If human exposures in distinct populations are approximating those provided in this study, concern over human breast health and lactational competency are justified," said the authors, led by Suzanne Fenton, a mammary gland expert at the National Toxicology Program.

That study was published as part of a major editorial in which scientists urged federal officials to add new tests for industrial chemicals and pesticides to find out which ones could disrupt breast development. That editorial said:

Given the magnitude of potential public health impacts on breast feeding and breast cancer, it is critical to strengthen testing methods and give more weight to them in policy decisions. Good decisions about pollution limits, pesticide approvals, and chemicals in consumer products and food rely on a full and accurate understanding of risks associated with exposure.

Message

From: Andy Kawczak [andyk@4taconic.com]
Sent: 7/20/2011 2:28:05 PM
To: 'Andy Kawczak' [andyk@4taconic.com]
Subject: FW: pfoa stuff

July 19, 2011

C8 panel says it has found cancer death rise at DuPont

By **Ken Ward Jr.**

The Charleston Gazette

CHARLESTON, W.Va. -- Workers at DuPont Co.'s Wood County plant who were exposed to the chemical C8 were more likely to die from kidney cancer and other kidney diseases, according to the latest findings from a three-scientist panel studying C8's potential health effects. The C8 Science Panel found "significantly increased rates of death among the more highly exposed workers compared to low-exposed workers" for kidney cancer and nonmalignant, chronic kidney disease. In a summary report made public Tuesday, the scientists said the increased deaths "could possibly be due to" C8 exposure because the kidney is one part of the body where the chemical is found. Science Panel members issued two other reports Tuesday: One found that increased C8 levels in the blood of Mid-Ohio Valley residents were associated with increases in a liver enzyme that can be an indicator of liver disease. The other discovered a potential link between C8 exposure and pre-eclampsia, or diabetes among pregnant women. The findings were released two months after Wood Circuit Judge J.D. Beane blasted the C8 Science Panel, saying the scientists had taken too long to come up with overall results from their work and to issue a formal conclusion about whether there is a "probable link" between C8 exposure and any illness. Science Panel members are working to implement a key provision of a \$107.6 million class-action settlement between DuPont and about 70,000 residents whose drinking water was polluted by C8 from the company's Washington Works plant south of Parkersburg. Panel members Kyle Steenland, David Savitz and Tony Fletcher were appointed to study C8 and determine if there is a "probable link" between exposure and illness. If they conclude there is, DuPont could be on the hook for up to \$235 million for future medical monitoring for area residents. The panel has published peer-reviewed papers and separate reports to the court that found C8 exposure associated with a variety of adverse health effects, ranging from high cholesterol and hypertension to birth defects and learning disorders in children. So far, though, the panelists have not filed a report in which they actually either find or rule out a "probable" link between such problems and C8 exposure. C8 is another name for perfluorooctanoate acid, or PFOA. In West Virginia, DuPont has used C8 since the 1950s as a processing agent to make Teflon and other nonstick products, oil-resistant paper packaging and stain-resistant textiles. DuPont and other companies have reduced their emissions and agree on a voluntary phase-out of the chemical, but researchers remain concerned about a growing list of possible health effects and about the chemical's presence in consumer products, as well as continued pollution from waste disposal practices. The new report is the first study to identify any association between C8 exposure and pre-eclampsia. Science Panel members said the association they found "is small, but clearly present based on a variety of ways of examining exposure." That same report, though, also said the panel's work had not found the same association between C8 exposure and low birth weight identified in studies by other scientists who looked at other populations of newborns. In its new liver-enzyme study, the Science Panel said the

association with C8 exposure "is unlikely to be due to chance, as it is highly statistically significant." The Science Panel said the findings regarding kidney disease deaths among C8-exposed Washington Works employees were statistically significant, but cautioned that they were based on small numbers and that "there was no overall excess risk of these diseases for all workers combined." Previously, court records indicated that DuPont had, in 2006, tried to stop the Science Panel from continuing its study of plant workers. That same year, DuPont reported that its own studies found a "slight, but not statistically significant" increase in kidney-cancer death rates among plant workers. An independent team of experts that advises DuPont on science issues criticized the wording of company news statements about that study, saying DuPont was wrongly downplaying the issue. In a statement issued Tuesday, DuPont spokeswoman Janet Smith said additional work by the Science Panel is under way "and must be completed before any conclusions could be drawn regarding cause and effect."

Reach Ken Ward Jr. at kw...@wvgazette.com or 304-348-1702.

Message

From: Andy Kawczak [andyk@4taconic.com]
Sent: 1/29/2009 3:26:16 PM
To: Janis Fallon [jfallon@woh.com]; Scott Fein [sfein@woh.com]
Subject: pfoa stuff -fyi

Via Charleston Gazette --

January 28, 2009

C8 panel finds possible link to high uric acid

The three-member science panel is studying C8 as part of a settlement of a class-action lawsuit against DuPont over the poisoning of Parkersburg area water supplies with the chemical.

By Ken Ward Jr.
Staff writer

CHARLESTON, W.Va. -- Mid-Ohio Valley residents with greater levels of C8 in their blood also tend to have more of a bodily waste that has been linked to hypertension and other cardiovascular diseases, according to a new study from a panel investigating the chemical's health effects.

Increased concentrations of C8 and a sister chemical in blood were "significantly associated" with increases in uric acid level, according to a study summary made public Tuesday by the C8 Science Panel.

Lawyers for DuPont Co. and Parkersburg-area residents filed the summary in Wood Circuit Court, and the science team then issued a news release to announce its findings.

The three-member science panel is studying C8 as part of a settlement of a class-action lawsuit against DuPont over the poisoning of Parkersburg area water supplies with the chemical.

C8 is another name for perfluorooctanoic acid, or PFOA. It is one of a family of perfluorinated chemicals, or PFCs. The other best-known PFC is PFOS.

In West Virginia, DuPont has used C8 since the 1950s at its Washington Works plant south of Parkersburg. C8 is a processing agent used to make Teflon and other nonstick products, oil-resistant paper packaging and stain-resistant textiles.

Around the world, researchers are finding that people have C8 and other PFCs in their bloods at low levels. People can be exposed by drinking contaminated water, eating tainted food, or through food packaging and stain-proof agents on furniture or carpet.

Evidence is mounting about the chemical's dangerous effects, but regulators have yet to set a binding federal limit for emissions or human exposure.

The science team and a group of West Virginia University researchers - both funded by the DuPont settlement - are examining data on more than 70,000 Mid-Ohio Valley residents who gave blood and medical histories. It is among the largest such community studies on toxic chemical exposure in history.

In its uric acid study summary, the C8 study team cautioned "no firm conclusions about a causal relationship between PFOA and PFOS and uric acid can be drawn from these findings."

"Because of the fact that uric acid and PFOA/PFOS were measured at the same time, we cannot know if an increase in either PFOA or PFOS would lead to an increase in uric acid," the summary said. "Other possibilities include that both uric acid and these two chemicals increase in relation to some other unknown chemical in the blood, or even that an increase in uric acid in fact causes an increase in PFOA or PFOS for unknown reasons."

Previously, a study of DuPont workers also found slight increases in uric acid among employees with higher levels of C8 in their blood.

The C8 science panel's news release said, "Uric acid is a natural component of the blood, coming largely from dietary sources, particularly meat."

"Very high levels of uric acid can lead to gout, a form of arthritis, and high uric acid has been associated with higher blood pressure in epidemiologic studies," the news release said.

Uric acid is the end product of the metabolism of purines, which are building blocks of DNA, according to the National Library of Medicine. Most uric acid produced in the body is excreted by the kidneys. An overproduction occurs when there is excessive breakdown of cells, which contain purines, or an inability of the kidneys to excrete uric acid.

High levels of uric acid can also indicate alcoholism, diabetes, leukemia, and renal failure.

In October 2008, the science panel released its initial findings, a set of studies that linked greater levels of C8 to higher cholesterol and - so far - no link between C8 and diabetes. Those initial studies were supposed to be made public in early 2007.

Reach Ken Ward Jr. at kw...@wvgazette.com">kw...@wvgazette.com or 304-348-1702.

Message

From: Andy Kawczak [andyk@4taconic.com]
Sent: 9/7/2010 2:09:03 PM
To: Scott Fein [sfein@woh.com]
Subject: pfoa--fyi

From the Charleston Gazette

September 6, 2010

WVU study links chemical C8 to high cholesterol in children, teens

CHARLESTON, W.Va. -- Children and teens exposed to higher amounts of the toxic chemical C8 appear to be more likely to have elevated cholesterol levels, according to a landmark new study published by researchers from West Virginia University.

By Ken Ward Jr.

The Charleston Gazette

Advertiser

CHARLESTON, W.Va. -- Children and teens exposed to higher amounts of the toxic chemical C8 appear to be more likely to have elevated cholesterol levels, according to a landmark new study published by researchers from West Virginia University.

The study also found that some increases in cholesterol may occur at exposure levels in the range of those found in the general U.S. population.

Stephanie Frisbee, a WVU Department of Community Medicine researcher and lead study author, said the findings are particularly important because of the potential effects higher cholesterol could have during a child's lifetime.

"The issue becomes important because of the cumulative effect of that level of elevated cholesterol over a 30-year-period," Frisbee said in an interview last week.

The study is being published in this month's edition of the peer-reviewed journal Archives of Pediatrics and Adolescent Medicine. It partly includes data that was previously made public by WVU's C8 Health Project and by the C8 Science Panel, but is also a more detailed and refined analysis of that information.

C8 is another name for ammonium perfluorooctanoate, or PFOA.

DuPont Co. has used the chemical since the 1950s at its Washington Works plant south of Parkersburg. C8 is a processing agent used to make Teflon and other nonstick products, oil-resistant packaging and stain-resistant textiles. While industry has promised to phase out C8 and some related chemicals, scientists are still concerned that exposures continue from chemicals already emitted and distributed in a wide range of consumer products.

Researchers are finding that people around the world have C8 in their blood in low levels. Evidence is mounting about the chemical's dangerous effects, but regulators have not set a federal standard for its safety.

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Researchers are finding that people around the world have C8 in their blood in low levels. Evidence is mounting about the chemical's dangerous effects, but regulators have not set a federal standard for its safety.

At WVU, Frisbee and other researchers are poring over blood tests and other data assembled as part of a huge study of C8's possible impacts on the health of nearly 70,000 residents near the Washington Works plant.

The C8 Health Project is a multi-year effort to examine the chemical's possible effects on mid-Ohio Valley residents. It is funded by major portions of a \$107.6 million settlement paid by DuPont to settle a lawsuit alleging the company poisoned residents' drinking water with C8. The settlement is also funding a related examination by a three-person science team of possible C8 links to adverse health effects.

In the new study, Frisbee and her colleagues studied blood samples from nearly 12,500 children and teens from the C8 Health Project data.

They found that higher PFOA levels were associated with increased total cholesterol and LDL or "bad" cholesterol. Higher levels of a related chemical, PFOS, were associated with increased total cholesterol, LDL cholesterol and HDL or "good" cholesterol.

On average, the one-fifth of children and teens with the highest PFOA levels had total cholesterol levels 4.6 milligrams per deciliter higher and LDL cholesterol levels 3.8 milligrams per deciliter higher than the one-fifth with the lowest PFOA levels.

"The non-linear nature of the observed associations, particularly for PFOA, suggests a possible saturation point in an underlying physiologic mechanism," the study authors wrote. "PFOA and PFOS specifically, and possibly perfluoroalkyl acids as a general class, appear to be associated with serum lipids, and the association seems to exist at levels of PFOA and PFOS exposure that are in the range characterized by nationally representative studies."

Learn about the C8 Health Project at <http://www.hsc.wvu.edu/som/cmed/c8/>

Reach Ken Ward Jr. at kw...@wvgazette.com or 304-348-1702.

Message

From: Andy Kawczak [andyk@4taconic.com]
Sent: 8/19/2011 2:07:57 PM
To: 'Fein, Scott' [SFein@woh.com]
Subject: fyi -pfoa /c-8 stuff

Via Charleston Gazette

August 18, 2011

Panel finds thyroid disease among kids exposed to C8

By Ken Ward Jr.

The Charleston Gazette

CHARLESTON, W.Va. -- Mid-Ohio Valley children with higher exposures to C8 showed a 50 percent increased risk of thyroid disease, according to the latest report from a three-scientist panel examining the toxic chemical's potential health effects.

The C8 Science Panel also reporting finding increases in thyroid hormones in children exposed to two related chemicals, the panel said in a three-page report filed Thursday morning in Wood Circuit Court.

The latest findings come on the heels of a West Virginia University scientific paper that raised questions about C8's possible impacts on thyroid function and another report that found a 25 percent increase in thyroid problems among members of the general U.S. population with higher C8 exposures.

"Taken together, these new findings suggest that normal thyroid function may be affected by exposure to one or more of the family of perfluoroalkyl acids," the Science Panel said in its new status report.

Science Panel members are working to implement a key provision of a \$107.6 million class-action settlement between DuPont and about 70,000 residents whose drinking water was polluted by C8 from the company's Washington Works plant south of Parkersburg.

Panel members Kyle Steenland, David Savitz and Tony Fletcher were appointed to study C8 and determine if there is a "probable link" between exposure and illness. If they conclude there is, DuPont could be on the hook for up to \$235 million for future medical monitoring for area residents.

The panel has published peer-reviewed papers and separate reports to the court that found C8 exposure associated with a variety of adverse health effects, ranging from high cholesterol and hypertension to birth defects and learning disorders in children. So far, though, panelists have not filed a report in which they either find or rule out a "probable link" between such problems and C8 exposure.

C8 is another name for perfluorooctanoate acid, or PFOA. In West Virginia, DuPont has used C8 since the 1950s as a processing agent to make Teflon and other nonstick products, oil-resistant paper packaging and stain-resistant textiles.

DuPont and other companies have reduced their emissions and agree on a voluntary phase-out of the chemical, but researchers remain concerned about a growing list of possible health effects and about the chemical's presence in consumer products, as well as continued pollution from waste disposal practices.

In their latest work, the Science Panel compared two measures of thyroid hormones -- thyroid-stimulating hormone, or TSH, and total thyroxine, or TT4 -- to levels of C8 in the blood of 10,725 children ages 1 to 18 and to estimates of their mothers' C8 levels at the time of pregnancy.

"Disturbances to the thyroid system, particularly in children, may have a number of negative effects, as thyroid hormones play important roles in regulating metabolism, growth and development, especially in normal brain maturation and development," the panel said in its three-page report.

The report cautioned that the increased risk of thyroid disease was based on a small number of cases with "borderline statistical significance" and that the results "are not sufficient to prove that PFOA is leading to increased thyroid disease." It also said that C8 concentrations and thyroid hormone levels were measured at the same time, making it impossible to know which came first.

The Science Panel has not yet published these results in a peer-reviewed journal, and its reports to the court do not include complete data, making it difficult for other scientists to comment on the results or the panel's commentary about them.

Reach Ken Ward Jr. at kw...@wvgazette.com or 304-348-1702.

Message

From: Andy Kawczak [andyk@4taconic.com]
Sent: 12/6/2011 3:05:54 PM
To: 'Fein, Scott' [SFein@woh.com]
Subject: PFOA stuff fyi

VIA CHARLESTON GAZETTE

December 5, 2011

Panel links C8 to high blood pressure in pregnancy

By Ken Ward Jr.

The Charleston Gazette

VIENNA, W.Va. -- A three-person team of scientists has found a "probable link" between C8 and high blood pressure among pregnant women, but no such link between exposure to the chemical and other reproductive effects, the team announced Monday.

Members of the C8 Science Panel issued the findings, which are the first major conclusions of their six-year study of the DuPont Co. chemical.

The Science Panel's work is part of a class-action lawsuit settlement between DuPont and Mid-Ohio Valley residents whose water was contaminated with C8 by DuPont's nearby Washington Works plant.

Reports of the panel's first "probable link" findings were filed Monday morning with Wood Circuit Judge J.D. Beane and released to the media at a news conference at a local conference center.

Panel members said evidence they reviewed was "insufficient" to conclude a probable link between C8 exposure and birth defects, preterm births, low birth weight, miscarriages and stillbirths.

But the group said scientific studies show a probable link between chemical exposure and pregnancy-induced hypertension, which is high blood pressure among pregnant women who did not have the condition prior to pregnancy.

Panel member David Savitz of Brown University said the condition "is certainly a serious complication of pregnancy," which can threaten the health of the mother and the baby. When combined with leakage of protein into the urine, this high blood pressure is an especially serious condition called pre-eclampsia.

While the high blood pressure can "resolve itself" after birth, Savitz said in an interview that the condition also puts mothers at increased risk of high blood pressure during future pregnancies and later in life. The condition can also prompt reduced fetal growth and early delivery, raising concerns about developmental problems for babies.

"This is a medically significant problem," Savitz said.

Three of four analyses of Mid-Ohio Valley residents showed small elevations in pregnancy-induced hypertension or pre-eclampsia among women with the highest C8 exposures, the Science Panel said. The evidence was "not completely consistent across the studies," but "is strong enough to conclude there is a probable link," the panel said.

Along with four reports on their probable link findings, C8 Science Panel members were also issuing new "status reports" related to updated figures on C8 blood levels in Mid-Ohio Valley residents, outlining a connection between C8 exposure and thyroid disease, and a more detailed look at C8 and reproductive health outcomes.

Read the reports

VIENNA, W.Va. -- A three-person team of scientists has found a "probable link" between C8 and high blood pressure among pregnant women, but no such link between exposure to the chemical and other reproductive effects, the team announced Monday.

Members of the C8 Science Panel issued the findings, which are the first major conclusions of their six-year study of the DuPont Co. chemical.

The Science Panel's work is part of a class-action lawsuit settlement between DuPont and Mid-Ohio Valley residents whose water was contaminated with C8 by DuPont's nearby Washington Works plant.

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Savitz and panel members Kyle Steenland and Tony Fletcher were appointed to study C8 and determine if there is a "probable link" between exposure and illness.

If they conclude there is, DuPont could be on the hook for up to \$235 million for future medical monitoring for area residents. A finding of no "probable link" for a particular potential health effect eliminates the ability of residents to sue DuPont for personal injuries related to such a health effect.

Lawyers for the residents welcomed the Science Panel findings, and said they would move to immediately set up a separate panel of doctors charged under the settlement with implementing the medical monitoring plan.

In a prepared statement, DuPont said it would "move forward with our obligations under the settlement agreement," but added that the company "does not believe that PFOA causes pregnancy-induced hypertension."

The term "probable link" isn't a standard one for scientists who study toxic chemical exposure. It's defined in the DuPont legal settlement as whether "based upon the weight of the available scientific evidence, it is more likely than not that there is a link between exposure to C8 and a particular human disease" among Mid-Ohio Valley residents taking part in the suit.

Savitz said that panel members did their own studies and reviewed papers by other scientists, using standard statistical tools to determine if C8 exposure was associated with increased risk of disease. Then, Savitz said, the group used the settlement agreement's language to determine if those associations were likely caused by C8 exposure.

"This is a judgment that we made," Savitz said. "The balance is tipped if it's more than 50 percent likely."

Savitz said panel members voted on their probable link findings, but declined to say if all of the votes were unanimous.

C8 is another name for perfluorooctanoate acid, or PFOA. In West Virginia, DuPont has used C8 since the 1950s as a processing agent to make Teflon and other nonstick products, oil-resistant paper packaging and stain-resistant textiles.

DuPont and other companies have reduced their emissions and agreed on a voluntary phase-out of the chemical, but researchers are still concerned about a growing list of possible health effects and about the chemical's presence in consumer products, as well as continued pollution from waste disposal practices.

More probable link determinations are due in the spring, with the final report from the Science Panel expected by July.

"This is just the tip of the iceberg," said Parkersburg resident Joe Kiger, one of the plaintiffs in the original suit against DuPont. "This is not something we wanted, but something we've been afraid was there."

Reach Ken Ward Jr. at kw...@wvgazette.com or 304-348-1702.

Message

From: Andy Kawczak [andyk@4taconic.com]
Sent: 4/30/2012 12:46:03 PM
To: 'Fein, Scott' [SFein@woh.com]
Subject: pfoa stuff-fyi

Via Charleston Gazette on April 16, 2012

Special panel links C8 to kidney, testicular cancer

By Ken Ward Jr.

The Charleston Gazette

VIENNA, W.Va. -- A team of experts revealed Monday that it has found a "probable link" between C8 and human cancers, rebuffing DuPont Co.'s longstanding contention that exposure to the chemical is harmless. The three-person C8 Science Panel said it is "more probable than not" that exposure to C8 put residents of the Mid-Ohio Valley at a greater risk of kidney and testicular cancers. Panel members made those conclusions in the second set of significant findings in their six-year study of the DuPont Co. chemical. Previously, the panel said there was a "probable link" between C8 exposure and dangerous high blood pressure among pregnant women. Panel members have said they found no link between exposure and some other conditions, including birth defects and other negative pregnancy outcomes, adult-onset diabetes, and more than a dozen other types of cancers. But under a legal settlement that created the Science Panel, any probable link connections mean DuPont Co. will have to fund up to \$235 million in future medical tests for area residents, to help provide early detection of diseases linked to exposure to C8 from the company's nearby Washington Works plant. "At least we know now," said Wood County resident Joe Kiger, one of the plaintiffs in the C8 suit. "Thank God we found out there was a problem. Maybe now we can do something about it." Last week, lawyers for DuPont and the residents announced the formation of a separate, three-person panel of medical experts who will design the appropriate monitoring program, required as part of a landmark legal settlement. C8 is another name for perfluorooctanoate acid, or PFOA. In West Virginia, DuPont has used C8 since the 1950s as a processing agent to make Teflon and other nonstick products, oil-resistant paper packaging and stain-resistant textiles. DuPont and other companies have reduced their emissions and agreed on a voluntary phase-out of the chemical, but researchers are still concerned about a growing list of possible health effects and about the chemical's presence in consumer products, as well as continued pollution from waste disposal practices. In Monday's cancer announcement, the Science Panel cited previous studies of DuPont workers, as well as the results of their own still-to-be-published analysis of health data for thousands of Mid-Ohio Valley residents. Panelists have examined available scientific papers by other researchers, and performed their own follow-up work, based in large part on data collected from 70,000 Parkersburg-area residents with money from the lawsuit settlement. "We had to put all the evidence together to come up with some kind of conclusion," said panel member Kyle Steenland, who studies environmental and occupational health issues at Emory University in Atlanta. The panel found the kidney cancer rate among residents exposed to higher levels of C8 was between 20 percent and 60 percent higher than lesser-exposed residents, depending on the chemical concentrations. For testicular cancer, rates were between 80 percent and 170 percent higher among residents with higher exposures, the panel said. Panel members released their latest findings at a press conference at a hotel just outside Parkersburg, timing the event to start

after copies of their findings were publicly filed with Wood Circuit Judge J.D. Beane. In December, the Science Panel released its first probable link findings, reporting after a year-study study that scientific evidence shows C8 exposure likely causes high blood pressure among pregnant women. The work of both panels is part of the 2005 settlement of a lawsuit filed against DuPont by Mid-Ohio Valley residents whose drinking water was contaminated with C8 by DuPont's nearby Washington Works plant. Once the Science Panel determined there was a probable link between C8 exposure and any human illness, DuPont was on the hook for funding up to \$235 million for future medical monitoring for area residents. The term "probable link" isn't a standard one for scientists who study toxic chemical exposure. It's defined in the DuPont legal settlement as whether "based upon the weight of the available scientific evidence, it is more likely than not that there is a link between exposure to C8 and a particular human disease" among Mid-Ohio Valley residents taking part in the suit. In a statement issued Monday, DuPont said, "A probable link report does not mean that the Science Panel has concluded that PFOA exposure has caused or will cause any human disease among the class members as a whole, including the Washington Works employees, or any individual." Lawyers for residents, though, issued their own statement that said the latest Science Panel findings "nixed DuPont's protestations that PFOA is harmless." "Today's scientific findings, coupled with the scientific panel's related findings in December, finally put to rest the long debate over whether PFOA is linked to any serious adverse health effects in humans," lawyers for the residents said. "It is has now been confirmed that human exposure to PFOA is linked to one of the most serious of human diseases -- cancer." The Science Panel is schedule to release the rest of its probable link determinations in July.

Reach Ken Ward Jr. at kw...@wvgazette.com or 304-348-1702.