



The 2,000-foot trash collection device by The Ocean Cleanup will be used to trap some 1.8 trillion pieces of plastic from the Great Pacific Garbage Patch.

Huge boom takes on cleanup in Pacific

Floating device invented by 24-year-old heads to ocean's garbage patch

The Associated Press

SAN FRANCISCO — Engineers will deploy a trash collection device to corral plastic litter floating between California and Hawaii in an attempt to clean up the world's largest garbage patch in the heart of the Pacific Ocean.

The 2,000-foot long floating boom will be towed Saturday from San Francisco to the Great Pacific Garbage Patch — an island of trash twice the size of Texas.

The system was created by The Ocean Cleanup, an organization founded by Boyan Slat, a 24-year-old innovator from the Netherlands who first became passionate about cleaning the oceans when he went scuba diving at age 16 in the Mediterranean Sea and saw more plastic bags than fish.

"The plastic is really persistent and it doesn't go away by itself and the time to act is now," Slat said, adding that researchers with his organization found plastic going back to the 1960s and 1970s bobbing in the patch.

The buoyant, a U-shaped barrier made of plastic and with a tapered 10-foot deep screen, is intended to act like a coastline, trapping some of the 1.8 trillion pieces of plastic that scientists estimate are swirling in that gyre but allowing marine life to safely swim beneath it.

Fitted with solar power lights, cameras, sensors and satellite antennas, the cleanup system will communicate its position at all times, allowing a support vessel to fish out

the collected plastic every few months and transport it to dry land where it will be recycled, said Slat.

Shipping containers filled with the fishing nets, plastic bottles, laundry baskets and other plastic refuse scooped up by the system being deployed Saturday are expected to be back on land within a year, he said.

The Ocean Cleanup, which has raised \$35 million in donations to fund the project, including from Salesforce.com chief executive Marc Benioff and PayPal co-founder Peter Thiel, will deploy 60 free-floating barriers in the Pacific Ocean by 2020.

"One of our goals is to remove 50 percent of the Great Pacific Garbage Patch in five years," Slat said.

The free-floating barriers are made to withstand harsh weather conditions and constant wear and tear. They will stay in the water for two decades and in that time collect 90 percent of the trash in the patch, he added.

George Leonard, chief scientist of the Ocean Conservancy, a nonprofit environmental advocacy group, said he's skeptical Slat can achieve that goal because even if plastic trash can be taken out of the ocean, a lot more is pouring in each year. "We at the Ocean Conservancy are highly skeptical but we hope it works," he said. "The ocean needs all the help it can get."

Leonard said 9 million tons of plastic waste enter the ocean annually and that a solution must include a multipronged approach, including stopping plastic from reaching the ocean and more education so people reduce consumption of single use plastic containers and bottles.

"If you don't stop plastics from flowing into the ocean, it will be a Sisyphean task," Leonard said.

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Bone On Bone?

Have you been given this diagnosis? Have you been told your only option is total knee replacement surgery? Have you been told injections won't work or have you had injections and still have pain?

There is now a safe, non-surgical solution that has been FDA cleared and is available locally. It has been proven to effectively reduce and even eliminate knee pain. There is no down time and you're encouraged to remain active without interruption to your daily routine. And the best part is it's covered by most insurance, including Medicare. A revolutionary, new, non-surgical treatment called Viscosupplementation Therapy is providing hope and relief for many knee pain sufferers. Offered locally by the medical doctors at Joint Relief Associates of New York, this procedure is minimally invasive, requires no surgery and can provide immediate and long-lasting results. Before we can discuss the benefits of Viscosupplementation Therapy, let's consider the most recent facts.

Consider The Facts...

- A recent study shows that Viscosupplementation is more effective than oral NSAIDs and injectable corticosteroids.
- An alarming 1/3 of all knee replacement surgeries yield poor outcomes.
- A Canadian study shows that Viscosupplementation is more beneficial than arthroscopic surgery for knee arthritis.
- According to the American Gastroenterological Association, NSAIDs hospitalize over 100,000 people yearly and are responsible for over 16,500 deaths.
- As per the CDC, 1 in 5 adults suffer from arthritis and by 2030 and estimated 67 million Americans will be diagnosed with Osteoarthritis.

Clearly arthritis and knee pain have already reached epidemic proportions in the United States. If you are experiencing any of the following symptoms in your knees or joints chances are your pain is due to a condition called Osteoarthritis and you may be a candidate for care.

- **Pain:** Your joints may ache, or the pain may feel burning or sharp. For some people, the pain may come and go. Constant pain or pain while sleeping may be a sign that your arthritis is getting worse.
- **Stiffness:** When you have arthritis, getting up in the morning can be hard. Your joints may feel stiff and creaky for a short time, until you get moving. You may also get stiff from sitting.
- **Muscle Weakness:** The muscles around the joint may get weaker. This happens a lot with arthritis in the knee.
- **Swelling:** Arthritis can cause swelling in joints, making them feel tender and sore.
- **Deformed Joints:** Joints can start to look like they are the wrong shape.
- **Reducing Range of Motion and loss of Use in the Joint:** As your arthritis gets worse, you may not be able to fully bend, flex or extend your joints. Or you may not be able to use them at all.
- **Cracking and Creaking:** Your joints may make crunching, creaking sounds

If you are experiencing any of the above mentioned symptoms, do not worry, there is hope. Many of our patients who reported these very same symptoms have seen them reduced or even eliminated after receiving Viscosupplementation Therapy. Have you lost hope or been told surgery is your only option? Don't accept an ultimatum! If you or a loved one have been given an ultimatum by another doctor don't worry, you have options. Feel free to call anytime at 516-590-7410 and ask for your free second, third or fourth opinion. Until recently, the only advice for many suffering from knee and joint pain was to:

- Try exercising
- Try physical therapy
- Try pain pills
- Try muscle relaxers
- Try pain shots
- Try dangerous surgery

If you are tired of trying treatments that don't provide lasting relief, or you are afraid to try any of these treatments, don't worry there is another option. **If you have tried any of these treatments and experienced little to no relief you may still be a candidate for Viscosupplementation Therapy. Call 516-590-7410 and schedule a no cost consultation today!**

How Does This Therapy Work? To See is To Know!

The doctors at Joint Relief Associates use high tech x-ray equipment called fluoroscopy to identify problem areas with great accuracy. (Studies show that simply feeling for the joint space and injecting may not be as accurate as they should be and produce less than excellent results.) Viscosupplementation is then injected into the knee, acting like a lubricant and shock absorber attempting to restore the cushioning and lubricating properties of a normal, younger knee. Most patients compare the treatment to getting a flu shot and report little pain or discomfort.



What Is Injected Into The Knee?

Hyaluronic Acid is a natural substance extracted from rooster combs and purified to mimic the lubricating substances that occur naturally in the joint called synovial fluid. In patients with osteoarthritis, synovial fluid "dries up" allowing the cartilage of the joint to rub against itself and other surfaces causing pain, inflammation, and in most cases damage to the joint. Think of this treatment like oiling a squeaky door hinge, once applied the squeaking stops and the door moves more freely.

Is This Treatment Covered By Insurance?

Yes! The good news for patients is that Medicare and most major insurances cover this.

Is This Treatment Right For You?

The American Academy of Rheumatology recommends the use of Viscosupplementation Therapy for treatment of Osteoarthritis of the knee. But to be clear, not everyone with knee pain is a good candidate for this highly effective, NO surgery, NO drug method. Our doctors will let you know if you qualify for this safe and effective treatment. To accommodate demand, we have opened our schedule to the first 17 callers to receive a "no cost" consultation.



Total knee surgery. Not for me.

Real Patients, Real Stories, Real Relief!

"Prior to starting treatment at Joint Relief Associates of New York, I suffered with severe pain in both my right and left knees to the point where I couldn't walk steps at all. Now, after treatment I'm totally pain free, playing golf 2-3x per week with no problem. My experience was excellent on all levels-very professional and efficient. I would recommend Joint Relief Associates of New York to anyone with knee problems..." -Dr. Allen P., Age 79, Hewlett, NY

So there you have it, surgery is no longer your only option, hope does exist, and this therapy has helped others like you. So what are you waiting for?

The possibilities of living pain free again and getting your life back on track is well worth the time and effort. Help is only a phone call away...516-590-7410

- Covered by most insurance companies including Medicare
- Treatment is safe, effective and requires NO surgery
- Call Us Today to schedule your appointment!

"Risk Free" Consultation
Offer valid for any individual seeking relief of chronic joint and knee pain. Imaging, physical examination and other services necessary to determine candidacy may be required. Not all individuals will qualify for Viscosupplementation Therapy. Call us Today!



Joint Relief Associates
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