

**What's important here?** The complications detailed in this infographic are for on average middle aged and slightly over weight patients who were tracked from 1-69 months (average 18 months).

## Patient Demographics

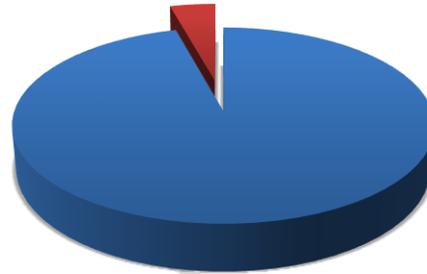
Regenexx-SD	
N	1,591 Patients 1,949 Procedures
Mean Follow-up	18 (1-69) mo
Age	55.6 years
BMI	26.5

Safety

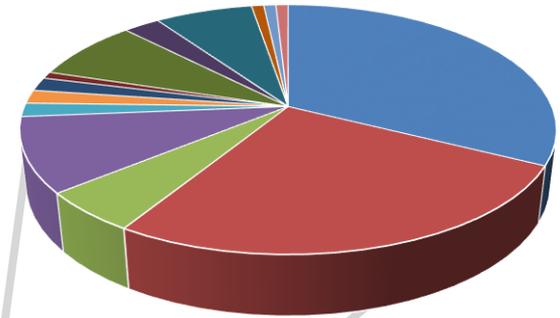


Our data supports that the Regenexx-SD procedure is as safe as other common injection procedures.

More significant adverse events within the total number of AEs



## Categories of AE



- Pain-Post Procedure
- Pain-Other area
- Skin
- Neurologic
- Immune/Allergic
- Pain-Degenerative
- Misc.
- Bloodwork
- Neoplasm
- Cardiac

Total Number of Procedures



■ No Adverse Events Reported    ■ Adverse Events

This is the data from our advanced treatment registry on reported complaints by 1,591 Regenexx-SD patients of as of Oct 2014. Patients were queried about any complications or new illnesses at 1, 3, 6 months and annually. This document represents a summary of the reports that we received after literally thousands of individual requests for information. Each complaint was adjudicated using HHS criteria with adverse event forms being filled out by the treating physician. These forms were then adjudicated and the results reported here.



Same day procedure that isolates two fractions of the bone marrow that's rich in stem cells.

# Narrative Discussion of Safety Data

**The RegenexxRegistry Adverse Event Process:** Our complications tracking system is proactive in that patients are sent questionnaires via e-mail at 1, 3, 6 months post procedure and annually. These questionnaires are intended to illicit complaints and cast a broad net so that anything reported by the patient, whether insignificant and unrelated or likely related to the procedure, is reviewed by the treating physician. The complaints adjudicated here are therefore the result of sending literally thousands of questionnaires. When a patient doesn't respond, he or she is then called several times at that time point until he or she either responds or is declared lost to follow-up for that reporting period. The process for the same patient then begins all over again at the next time point. So for example, a patient that didn't respond at 3 months after multiple e-mails and telephone calls, would again be contacted at the next time point (6 months).

Once a complaint is received, it's sent to the treating doctor, who then must fill out an adverse event (AE) form. The form asks the doctor if the complaint is related to the procedure (i.e. "I got a cold last week at work" is likely unrelated), if it meets the HHS definition of serious, if it's ongoing, etc... The doctor then at that point may be able to adjudicate the complaint or he or she may need additional information from the patient. For this document, a second physician reviewed all of these AE forms and reviewed the medical records of all applicable patients to conclude adjudications that may not have been available at the time of the initial complaint. For example, whether a problem eventually resolved or whether the later medical record provided additional data. Some patients were also re-contacted at that time to fill in any missing data.

**More Detail about the AEs Reported on Page 1:** Pain/swelling was the most commonly reported AE at 64% of all complaints or 3.7% of all patients treated. This was generally self-limited and resolved without any intervention. This is broken down into two main categories-pain that was post-procedure and expected and pain that was related to ongoing degenerative disease. The miscellaneous category included complaints like clicking/popping/catching/instability in the joint (less than 1% of all patients), a self-limited feeling of asymmetry, muscle cramping, self-limited lethargy. One patient in this category reported bone growth that was determined to be due to continued osteophyte formation from advancing degenerative joint disease. The skin category included self-limited itching/rash and skin discoloration (less than 0.5%). Blood work abnormalities included a transient drop in neutrophils in one patient and an increase in calcium in another. Patients who reported in the bleeding/hematoma category had self-limited hematomas at the bone marrow aspirate site (less than 0.25%). One of these patients did visit the emergency room and was imaged, but was treated with supportive care only. Cardiac reports included two patients with a history of arrhythmias, one who reported a run of PVCs post re-injection procedure and a second who reported a run of atrial fibrillation (AFib) post bone marrow aspirate, both of which were self-limited. The PVCs were thought to be unrelated and the AFib was adjudicated as possibly related. One patient suffered an unrelated heart attack at a later date. Neurologic AEs included two patients who reported self-limited nerve sensation after a re-injection procedure-both were adjudicated as possibly related. One patient in the immune/allergic category reported an acute unrelated viral infection and lethargy and another reported a self-limited allergic reaction to the skin anesthetic. One patient noted the development of end stage renal disease without temporal relationship to the procedure and the patient did not relate this problem to the procedure. Based on chart review this event was adjudicated as unrelated.

The two patients that reported neoplasm during the observation period were both in non-injection areas. One reported a breast lump several months after the procedure that was found to be benign on biopsy. The other had aggressive gastric cancer reported to his treating physician two weeks after the procedure and died approximately one month later. Using [The National Cancer Institute, Surveillance Epidemiology and End Results \(SEER\) Program](#) data on the annual incidence of all cancer for all sites would predict that more than 6 patients in our group of patients tracked for on average of 14.8 months would have naturally developed cancer. The fact that two patients reported cancer in this time period is therefore not surprising and is well below the expected rate if no treatment had occurred. As a result, it is highly unlikely that any aspect of the treatment had any relationship to these neoplasms.



Same day procedure that isolates a fraction of the bone marrow that's rich in stem cells.

