



The Okyanos Orthopedic Lifestyle Report

– April 2015

Living with orthopedic pain:

*is it possible to have a normal life,
or is a life restricted from doing
what we love to do the new normal?*

Executive Summary

This quarter's Okyanos Orthopedic Lifestyle Report reveals lifestyle details of 414 respondents mainly between the ages of 55 and 74 who live with various types and levels of orthopedic conditions ranging from mild to severe, including osteoarthritis, rheumatoid arthritis, sports injuries and chronic knee, hip or back pain. The majority of respondents say their condition is "manageable with care," unfortunately, survey responses show that "manageable with care" still means living under restrictions demanded by pain and chronic stiffness, limited mobility and lack of energy.

- 28% of respondents with an orthopedic condition said that their condition is "serious" and an additional 53% said their condition is "manageable with care."
- The most common symptoms of their conditions are pain, chronic stiffness, reduced functionality in walking, standing or bending over and lack of energy.
- 52% have also been diagnosed with osteoarthritis, 18% with a sports injury, 16% with spinal issues and 13% with rheumatoid arthritis. Other conditions are related to knees, hips, discs and tendons.
- In terms of their emotional reaction to their condition, 67% say they are "determined to improve" or "resolved to carry on," but 15% are experiencing fear, sadness and depression.
- Patients are not too sleepless as a result of their orthopedic condition. 56% say that it does not keep them up at night. But, if it does, it is due to pain and physical discomfort.
- When it comes to exercise though they are evenly split between regularly and sometimes.
- Over 50% said that their orthopedic condition now prevents them from doing the type of exercise they want to do. This includes walking, running, dancing, gardening and having sexual relations.
- Over 60% would consider an alternative option such as cell therapy if it were based on certain criteria, including that the treatment is backed by rigorous clinical trial and scientific data, is led by a US board certified physician and is available in a center with internationally approved cell processing equipment.
- In terms of diet, the majority of respondents (about 60%) said that they only consume sugar, wheat, whole grains and honey occasionally, demonstrating a healthier attitude about their eating habits.
- 68% feel their treatment could be better.

Introduction

Although today’s advanced medical care has afforded patients the ability to manage the symptoms of their orthopedic conditions, many are left with no real quality of life. Orthopedic patients, like [heart disease](#) patients, appear to be redefining a “normal life” of soldiering on with ongoing symptoms despite their pain medications, devices and surgical transplants. What options do these patients have for better care?

What we know from our survey respondents is that living with any type of orthopedic condition today means living with pain or discomfort, taking medications for relief and feeling that your treatment could be better.

Surprisingly, a higher number of people report being kept up at night with orthopedic discomfort than the heart condition respondents from last quarter’s [heart disease survey](#) yet, like heart patients, the majority of these orthopedic sufferers label their condition as “manageable with care” and are emotionally “resolved to carry on” and “determined to improve.”

What is clear is that the most troubling factors for orthopedic patients are knees and implanted devices. Even with the use of pain relievers and surgical replacements, continued pain, stiffness and reduced functionality prevents a normal life. As a result, we see an emerging parallel between the daily challenges of heart disease patients and those living with orthopedic problems.

Today’s orthopedic patient is someone who deals with various levels of pain and chronic stiffness in their day to day life. They experience

lack of energy, flexibility and mobility. The activities they used to do freely prior to the development of their condition are now limited, forcing them to be less active than they want to be. And though many don’t search for alternatives unless their condition has reached the “severe” level, most feel their treatment could be better.

Unlike something like heart disease, orthopedic conditions are not generally perceived as “life-threatening,” and thus many patients are accepting of using pain meds, injections and restricting their activities so long as they can manage the discomfort that way.

Not surprisingly, the percentage of those ready to look for an alternative option is very close to the percentage that defined their condition as severe (26%).

But, like patients with heart disease, the orthopedic patient’s “normal life” has been redefined by their physical condition, in spite of medical advancements and technology.

Is this new, restrictive life something we must come to accept for these patients, or are there other options?

Methodology

Operating the only fully licensed, private medical facility worldwide that can offer adult stem cell therapy derived from a patient’s own body fat in a highly regulated environment¹, Okyanos provides a new standard of care in a first-of-its-kind facility, built to meet and exceed U.S. surgical standards under the guidance of a world class cell-therapy medical team and renowned [Medical Advisory Council](#).

This quarter’s Okyanos Lifestyle Report summarizes the lifestyle and challenges for people living day to day with a chronic orthopedic condition and is based on information from 414 respondents to a survey of patients with various orthopedic issues. The survey was conducted March 16th through March 30th 2015 and represents people across multiple age groups, 69% of whom were 55-74 years old, and U.S. geographies. Survey respondents were asked about their daily life, lifestyle challenges and habits and related experiences.

Orthopedic Condition Definition: Any person who has indicated that they have been diagnosed with a musculoskeletal impairment such as bone, joint, ligament, tendon and muscular injury, or other conditions such as osteoporosis and arthritis.

The Orthopedic Condition

According to the Okyanos survey, while 28% of respondents say they have a “serious” orthopedic condition, 53% said that it is “manageable with care” and 27% say it is “mild.”

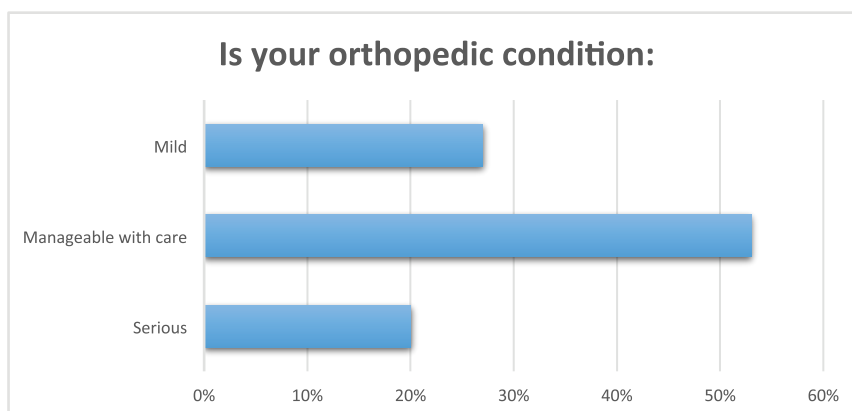


Fig. 1: Is your orthopedic condition:

When asked what other conditions they have been diagnosed with, the most common is osteoarthritis. In addition, 42% have a sports-related injury, 36% have a spinal condition, and 29% have rheumatoid arthritis. Other conditions mentioned were chronic tendonitis, fibromyalgia, knee, hip and disc damage, neuropathy and carpal tunnel syndrome improve the quality of their life. Most feel their treatment could be better. Their “normal life” today has been redefined by heart disease.

1. The Bahamas passed The Stem Cell Therapy and Research Act in 2014 to ensure a “legislative framework and regulatory regime” with the highest standards of stem cell therapy research and treatment after assistance and collaboration with the University of Miami Miller School of Medicine, as well as other contributors from Canada and the EU. The licensing and regulations are rigidly controlled by the Bahamian National Stem Cell Ethics Committee, the Scientific Committee and a Compliance Committee with the intention of being tougher than those in Panama, Mexico and China. <http://www.thenassauguardian.com/news/45925-stem-cell-regulations-nearly-complete>

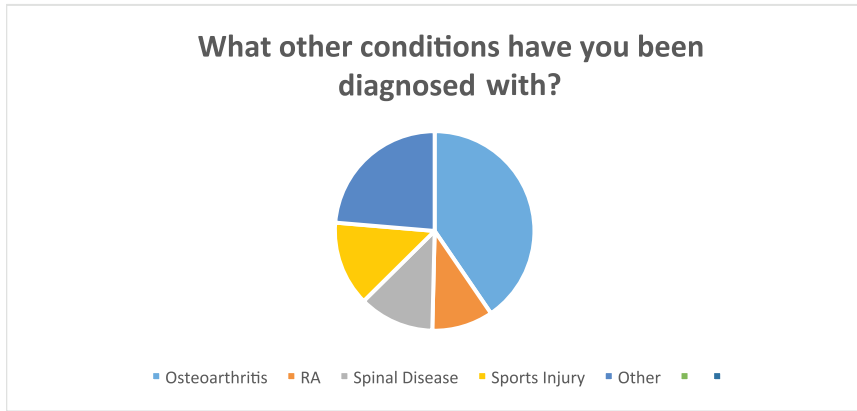


Fig. 2: What other conditions have you been diagnosed with?

Orthopedic Symptoms and the Emotional Toll

The majority of orthopedic patients live day to day with 3 common symptoms that continue to place limitations on their ability to live the life they want: chronic stiffness and pain (73%) as well as reduced functionality (66%) in activities such as walking, standing and bending over. 30% experience lack of energy, and other symptoms include disability and lack of flexibility.

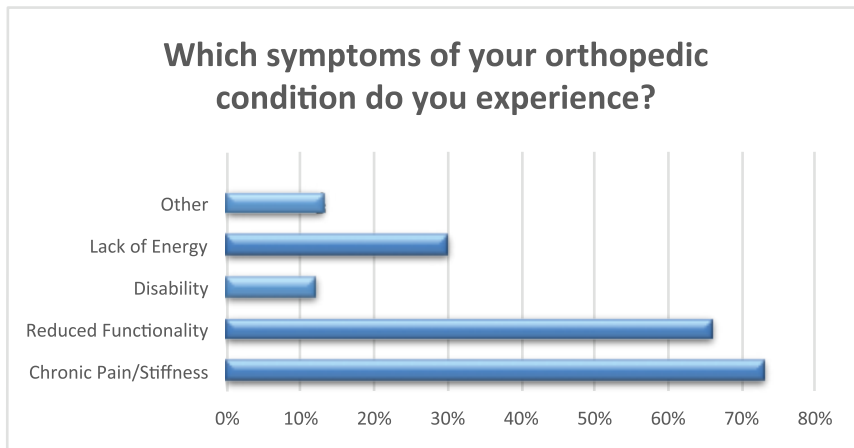


Fig. 3: Which symptoms of your orthopedic condition do you experience?

40% have elected to have surgery and 30% have either an implanted device for a knee or hip condition.

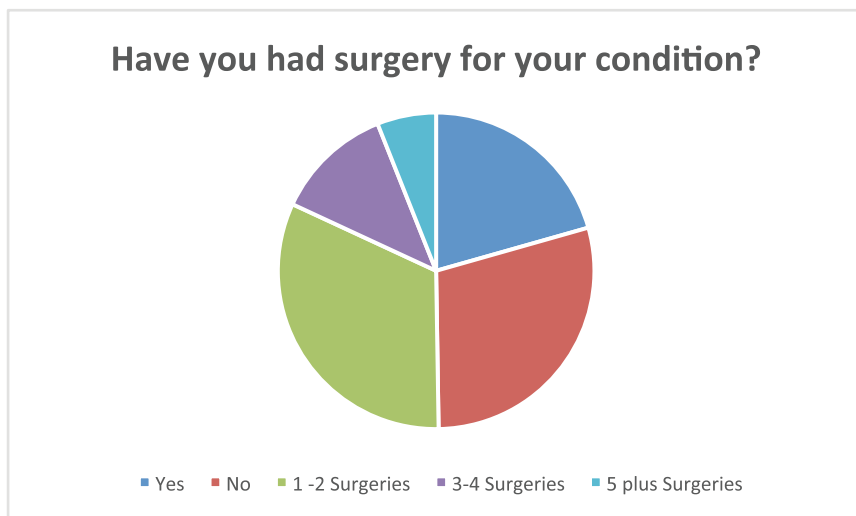


Fig. 4: Have you had surgery for your condition?

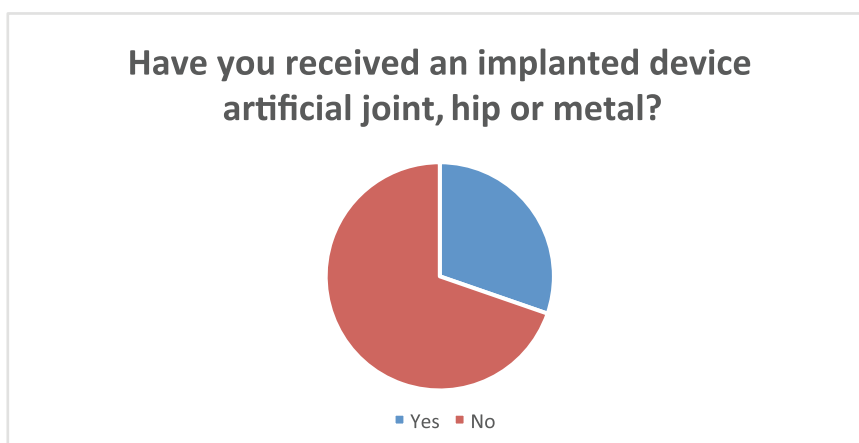


Fig. 5: Have you received an implanted device, artificial joint, hip or metal?

An Orthopedic condition does not take its toll on sleep for the majority of respondents (56%) but out of the 44% who are affected, 86% say the reason is pain or discomfort. Still, the average number of hours slept is 7-8 hours, and a majority (56%) are using pain relievers or narcotics.

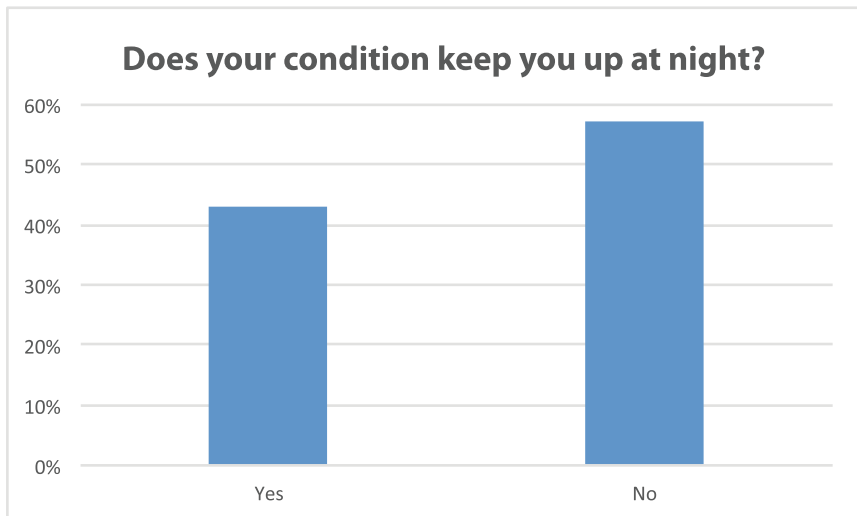


Fig. 6: Does your condition keep you up at night?

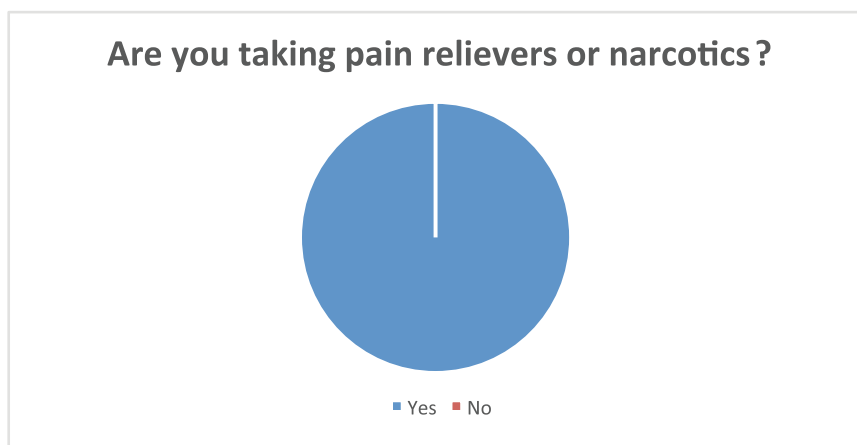


Fig. 7: Are you taking pain relievers or narcotics?

When asked how their condition made them feel emotionally, 37% said they are “resolved to carry on,” and 29% said they are “determined to improve.” While 9% said they feel sad or depressed, only a small percentage are experiencing very negative emotions such as apathy or hopelessness.

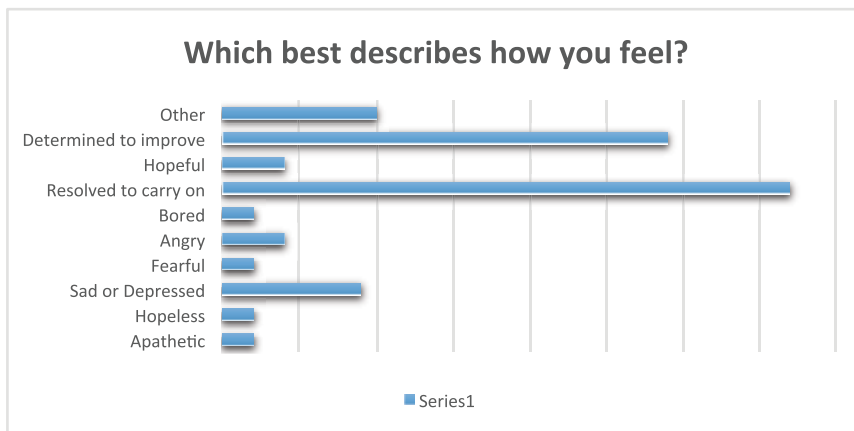


Fig. 8: Which best describes how you feel?

The good news is that despite physical and emotional effects, a very high majority of 78% say their condition does not cause friction in their personal relationships. Of those that do report friction, it is considered “mild” or “limited” and mostly centered around the significant other and restricting activities.

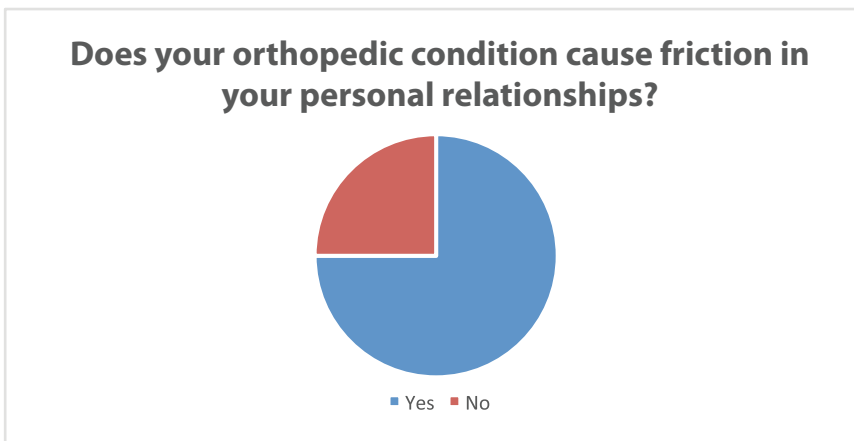


Fig. 9: Does your orthopedic condition cause friction in your personal relationships?

Exercise and Diet

One would expect that an orthopedic condition would limit exercise and while this is true with some of the respondents, it is not as high as one might expect. 44% report doing some type of exercise regularly and 40% say only sometimes.

We asked a new question this quarter about diet to examine any correlation between diet and wellbeing. It seems that most are being conscious about what they eat as the majority say that they are only eating sugar, wheat products and honey occasionally (less than four times per week.) In addition, the majority (50%) say they “never” use sweeteners such as Stevia, Splenda or Nutrisweet.

	1-3x Daily	Several times weekly (4X or more)	Occasionally	Never	Total
White bread/products	7.43% 15	15.35% 31	56.44% 114	20.79% 42	202
Wheat bread/products	10.89% 22	21.29% 43	55.94% 113	11.88% 24	202
Whole grain bread/products	11.17% 23	27.67% 57	53.88% 111	7.28% 15	206
White sugar	10.78% 22	15.69% 32	49.02% 100	24.51% 50	204
Sweeteners (Nutrisweet, Splenda, Stevia, etc.)	18.72% 38	12.81% 28	18.72% 38	49.75% 101	203
Honey	3.41% 7	6.34% 13	68.29% 140	21.95% 45	205

Fig. 10: How frequently do you consume these foods?

There are restrictions placed on their exercise and other activities and those most greatly affected are running, gardening, dancing, travel and sex. Other activities limited are their job, and swimming.

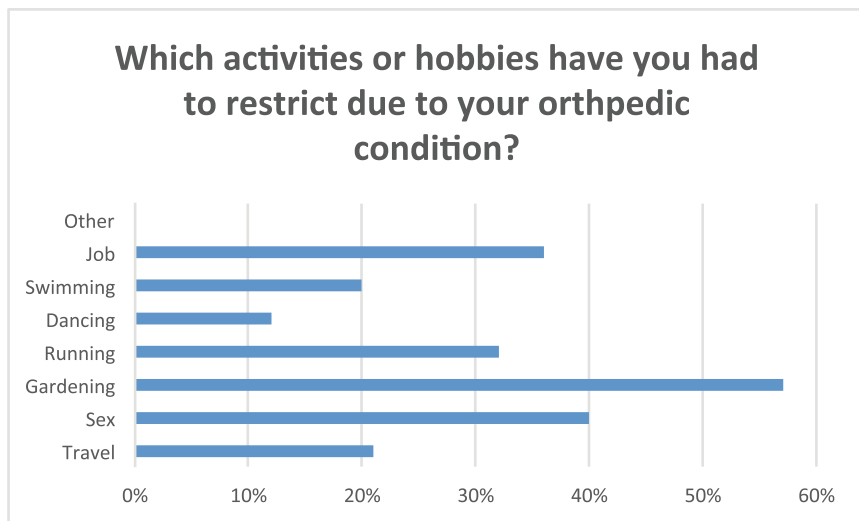


Fig. 11: Which activities or hobbies have you had to restrict due to your orthopedic condition?

If I could still do just one thing...

Most of us have hobbies and activities we enjoy or that mean a great deal to our life, and those with mobility and flexibility issues, and of course pain and stiffness are affected in many ways. When asked, “What is the one thing you wish you could still do that you orthopedic condition prevents you from doing?” the majority (37%) had a variety of answers: riding a Harley, climbing stairs, basic house work, making a fist, having better balance, drawing, use of their hands, kneeling and—our favorite—“wearing beautiful high heels all day long.” The other activities mentioned were walking (24%), running (12%), sports (12%), jogging or hiking (9%), not having pain (7%) and having more energy (1%).

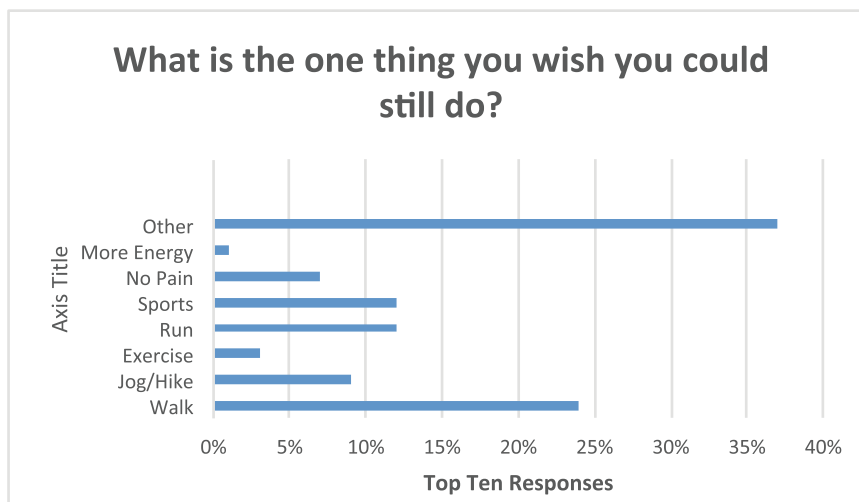


Fig. 12: What is the one thing you wish you could still do?

Conclusion

What kind of lifestyle does one have with a chronic orthopedic condition? The answer to this question depends on the severity of the condition and how each of us defines what it means to lead a “normal” life.

For those needing surgical implants or joint replacement devices, the obstacles of high treatment costs and an increase in failed implants, as well as an increasing rejection rate, are challenges facing the medical implants industry [<http://www.beckersspine.com/orthopedic-a-spine-device-a-implant-news/item/25042-12-observations-on-implant-materials-for-the-next-generation.html>]. The orthopedic field has also been dealing with the criticism of surgical overuse and the potential risk to patients. Advances in technology and treatment for sports-related injuries are resulting in a growing number of orthopedic surgeons including platelet-rich plasma (PRP) treatments and stem cell therapy as an adjunct to the care of injury-caused and chronic joint ailments. [<http://www.prweb.com/releases/2015/03/prweb12606872.htm>]

The gap between having a normal life which is full and active without orthopedic pain and living a life which manages the pain, is not too wide for many of the survey respondents. And yet, even with the attitude of “resolved to carry on” there is no question lives have changed, if only in restricting activities and sleeping habits. So like heat patient, we see a redefining of the word “normal” as a quality of life which must be accepted rather than enjoyed.

Understanding the true challenges of an orthopedic patient’s daily life as well as the regular limitations to their quality of life is an integral part of transforming and prioritizing the orthopedic care we are able to provide.

No matter how good our standard of care is today, 67% say that their treatment could be better.

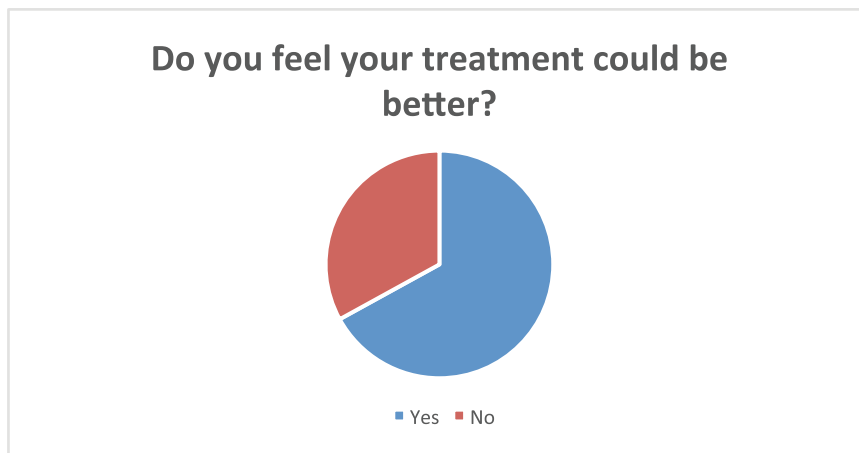


Fig. 13: Do you feel your treatment could be better?

About Okyanos

Based in Freeport, Grand Bahama, Okyanos brings a new standard of care and a better quality of life to patients with coronary artery disease, tissue ischemia, autoimmune diseases, and other chronic neurological and orthopedic conditions. Okyanos Cell Therapy utilizes a unique blend of stem and regenerative cells derived from patients' own adipose (fat) tissue which helps improve blood flow, moderate

destructive immune response and prevent further cell death. Okyanos is fully licensed under the Bahamas Stem Cell Therapy and Research Act and adheres to U.S. surgical center standards. The literary name Okyanos, the Greek god of the river Okyanos, symbolizes restoration of blood flow.

Okyanos Headquarters

First Commercial Centre
East Mall Drive, PO Box F42476
Freeport, GB, The Bahamas
1.855.OKYANOS

North American Office

1150 Cleveland Street, Suite 201
Clearwater, FL 33755
www.okyanos.com

