



THE SAFETY STOP

COJO's MONTHLY NEWSLETTER

On Location from: COJO World Headquarters, Lincoln, New Brunswick

ISSUE 75

What's New

Welcome to the **April 2017** edition of the **COJO Diving Safety Stop** newsletter.

March has been **absolutely crazy!!** There was some awesome **ice diving** going on as well as tons of other courses and trips!! **COJO North** received the **new compressor** as well this month and it is ready to be hooked up!! Thanks to all who helped out!! Especially **Hubert** for bringing all the gear to lift the compressor!!



The COJO **PADI Seal Team** finished up and all the seals earned their fins!! **Great job Seals!!**

The water is freezing but the diving has continued!! COJO has also been able to make a trip to where the water wasn't quite as freezing, more on that in a bit!!

For **COJO North** in **Pointe Verte**, there is an upcoming **Visual Inspection** for tanks weekend!! COJO will be there on **29th and 30th** to **vis**, bring tanks for **hydros** and **re-fill cylinders!!** If your cylinders need to be inspected or, you would like us to have a look at your gear, come on out to Atlas Park for the event!!

This month's **Health & Diving** article is by our very own **David Petrie**, a.k.a. **JAW BREAKER**. To get it done was like pulling teeth but, he got it to us on time!! Thanks David!!

COJO's Winter Store Hours:

Monday	5pm to 9pm
Tuesday	5pm to 9pm
Wednesday	5pm to 9pm
Thursday	5pm to 9pm
Friday	5pm to 9pm

Thanks and Safe Diving!!
Connie and Joe
COJO Diving



THE SAFETY STOP

COJO's MONTHLY NEWSLETTER

Courses During March

During **March**, COJO ran the following courses.

- **PADI** – **SEAL Team** (Freddy)
- **PADI** – **Open Water course** (Freddy)
- **PADI** – **Discover SCUBA Diving**
- **PADI** – **Ice Diver course**
- **SDI** – **Ice Diver Instructor course**
- **PADI** – **Drysuit Diver course**
- **PADI / SDI** – **Recreational Sidemount Diver course**
- **DAN** – **Emergency Oxygen for Diving** (Freddy)





David Petrie
This diver has completed the requisite training for the certification level of:

Ice Diving Instructor

Member #: 23242
Date: 2017-03-28

Facility: SDI/TDI/ERDI Headquarters

Inst: SDI/TDI/ERDI Headquarters Member #: 5280

RSTC Member | EUF/ISO #9001 Certified | www.tdisdi.com



Great job to all and a special congratulations to Instructor-Extraordinaire, Jaw Breaker, David Petrie on his certification as an Ice Diving Instructor!! Great work!! Man is he ever excited in that picture!!

Woo hoo!!



THE SAFETY STOP

COJO's MONTHLY NEWSLETTER

Excursions During March

During March, **COJO** had an awesome trip to **Mexico!!** Connie and Joe headed to **Tulum** on the **Yukatan Peninsula** for some awesome **cave diving!!** While there, they had **Skanda** from **Protech Tulum** for a local guide!! **Great job Skanda!!** Also, they were lucky enough to meet up with **Eli Reiman**, who took an awesome video of the cave diving on the second day of diving there!! **Thanks Eli and congratulations on your 1000th dive!!** Great job!!

A very special thanks to **Kim Davidson** and the entire staff at **Protech Dive Shop** in Tulum!! We will be back next year for some awesome cave training!!

Also in Mexico, Connie and Joe went to **Cozumel** for some beautiful reef diving with **Liquid Blue Cozumel!!!** A very special thanks to **Steve, Kami** and the entire crew at Liquid Blue!! These dives were amazing!! We loved the marine life and all that Liquid Blue added!! **Total customer service and a pleasure to dive with!!**

Needless to say, **we will be bringing a group to Mexico next year!!** There will be tons of **open ocean diving** off of Cozumel with Liquid Blue for those interested as well as the opportunity to do **cavern up to full cave training** or, if trained, cave dive your brains out!! We can't wait to go back!!





THE SAFETY STOP

COJO's MONTHLY NEWSLETTER

Courses To Come

Looking ahead for **April**, and beyond, The Training Calendar has been updated again and we have tons of courses available!! If you are interested in them or, if you don't see what you are looking for, just send a note at cojodiving@gmail.com or on **Facebook** for information on when we can run it for you!! We are getting back into open water courses as the water slowly starts to warm up and also conducting courses like **Cylinder Service Tech** and **First Aid** as well as **many, many more courses!!**



- **Ongoing – PADI – Open Water Diver Training (Reserve now)**
- **Ongoing – PADI – Divemaster Course (Bathurst)**
- **3 April – PADI – Enriched Air Diver (Freddy)**
- **10 – 14 Apr – DAN – Dive Emergency Management Program**
- **18 – 19 Apr – EFR – Primary and Secondary Care**
- **22 April – TDI – Basic Gas Blender course**
- **23 April – TDI – Cylinder Service Technician course**
- **18 May – PADI – Advanced Open Water (Freddy, Bathurst)**
- **19 May – PADI – Enriched Air Diver (Freddy, Bathurst)**
- **20 – 22 May – PADI – Advanced Open Water dives (Deer Island)**
- **27 May – PADI – Bubblemaker (Bilingual)(Freddy)**

If you would like information on courses for **2017** or on our **Training Calendar**, contact us at cojodiving@gmail.com for more details!! There is still tons of space!!



Atlas Park Ice Dive Mar 18 2017, credit John Prendergast



THE SAFETY STOP

COJO's MONTHLY NEWSLETTER

Events to Come!!

COJO North Cylinder Inspection Day

On **29th of April**, COJO will have **3 visual inspectors** on hand at our **COJO North, Atlas Park** facility to inspect cylinders. If you need a **visual** or **hydrostatic inspection**, come on in and visit. As well, **we will be filling cylinders** with **air** or **Nitrox** at the same time. To obtain fills, you must present the appropriate certification. For air, you must have an Open Water Diver card and for Nitrox, you must present a Nitrox certification!! If you have questions, feel free to contact us!!

Prices are: **Visual Inspection** - \$17.25 with tax
Hydro Inspection - \$45.00 with tax

For this event, **air fills** will be a flat rate of **\$10.00** / fill and **Nitrox** will be **\$13.00**

COJO Dive Social, Sale and Swap

Our annual **COJO Social**, sale and swap will be split in two this year!! We will be doing one at **COJO's World Headquarters** on **7 May** for the people in that area and then the next weekend on **13 May**, we will do the **COJO North Dive Social, Sale and Swap**!! Don't miss out on this as it is also our **COJO North (Atlas Park) GRAND OPENING** and it promises to be the event of the year!! At both, we will have snacks and a **BBQ at Atlas Park** too for Joe!!

Also during these events, **All Divers** are encouraged to bring in their mildly used gear to sell on one of the tables that will be set up. **Divers-in-need**, are encouraged to come in and take a look at what others are selling and make some deals!! As always, **COJO staff** will be there in case there are any questions with gear or anything else!!

Don't miss out!!



THE SAFETY STOP

COJO's MONTHLY NEWSLETTER

And Now Jaw Breaker!!



A Review of Dental Implications in Scuba Diving

Since the advent of self-contained underwater breathing apparatus (SCUBA) in the middle of the 20th century, many of the known in-flight oral phenomena caused by atmospheric pressure changes have been associated with diving.

According to Boyle's Law, the volume of gas at constant temperature varies inversely with the surrounding pressure. The changes in gas volume inside the body's rigid cavities, associated with the changing atmospheric pressure, can cause several adverse effects, which are referred to as barotrauma. Barotrauma can occur during diving, flying, or hyperbaric oxygen therapy.

Head and face barotrauma include entities of barotitis, barosinusitis, barotrauma related headache, dental barotrauma and barodontalgia. The first three entities are not associated with dental changes and will not be discussed. However, the latter two will be discussed.

Dental barotrauma can manifest as tooth fracture, restoration fracture, and reduced retention of dental restoration. Other than the need for dental treatment, potential consequences include aspiration or swallowing of the dislodged restoration or dental fragment, and pain, which may lead to incapacitation while diving and premature discontinuation of planned dive.

The term barodontocrexia (barometric-induced "tooth explosion", Greek), I know it sounds and IS TERRIBLE!!!describes the phenomenon of dental fracture. Most of the reports regarding dental fractures under barometric changes considered in-flight conditions.

Dental barotrauma occurs while ascending; upon surfacing after completing a dive, the diver may report that a tooth broke or has shattered. Dental barotrauma can appear with or without pain similar to dental fracture occurring at ground level.

The predisposing factors that appeared repeatedly in dental barotrauma reports were pre-existing leaked restorations and/or recurrent caries lesions underneath restoration in the affected tooth prior to exposure to the barometric changes.



THE SAFETY STOP

COJO's MONTHLY NEWSLETTER

Pressure changes in micro bubbles in the cement layer underneath crowns can lead to a significant reduction in retention of the crown and may even dislodge.

Barodontalgia is an intraoral pain evoked by a change in barometric pressure, in a otherwise asymptomatic or normal oral cavity. In a diving environment, this pain is commonly called tooth squeeze. Although rare, in-diving or in-flight barodontalgia can cause a diver to experience vertigo and sudden incapacitation thus could jeopardize the safety of diving. Barodontalgia is a symptom rather than a pathologic condition itself and in most cases reflects a flare-up of pre-existing oral or dental disease.

Pain appears at a water depth of 33 feet and deeper, usually at a depth of 60 to 80 feet. Upper teeth are more commonly affected than lower teeth and the vast majority of the episodes occurred upon descent, which may indicate a greater role of the maxillary sinuses in the cause of diving barodontalgia.

So.....what can we do to edge our bets against developing a dental barotrauma? Your dentist should carry out preventive measures and periodically examine you (the diver) and search for pathologies, such as leaked restorations and secondary caries lesions. Your dentist should be made aware that you are a diver and be noted to your dental chart.

For prevention of dislodgement and aspiration, you should not dive while having provisional restorations or temporary cement in the mouth and Resin cement should be used when rendering treatment on a diver. Temporary diving restriction after dental and surgical procedures is still a powerful tool for prevention of postoperative barodontalgia. You should not dive 24 hours of a restorative treatment requiring anaesthetic and within at least seven days of having surgery.

So like maintenance of your diving equipment....take care of your oral health to avoid any problems.

Un examen des implications dentaires dans la plongée sous-marine

Depuis l'apparition de l'appareil de respiration sous-marin autonome (SCUBA) au milieu du XXe siècle, la plupart des phénomènes oraux connus en vol causés par des changements de pression atmosphérique ont été associés à la plongée.

Selon la loi de Boyle, le volume de gaz à température constante varie inversement à la pression environnante. Les changements de volume de gaz à



THE SAFETY STOP

COJO's MONTHLY NEWSLETTER

l'intérieur des cavités rigides du corps, associés à la pression atmosphérique changeante, peuvent causer plusieurs effets indésirables, qui sont référés au barotrauma. Le barotraumatisme peut se produire pendant la plongée, le vol ou l'oxygénothérapie hyperbare.

Un barotrauma de la tête et du visage comprennent des entités tels que les barotides, barosinusite, barotrauma cas de céphalées connexes, barotrauma dentaire et barodontalgie. Les trois premières entités ne sont pas associées aux changements dentaires et ne seront pas discutées. Cependant, les deux derniers seront discutés.

Le barotraumatisme dentaire peut se manifester par une fracture de la dent, une fracture de la restauration et une rétention réduite de la restauration dentaire. Outre la nécessité d'un traitement dentaire, les conséquences potentielles comprennent l'aspiration ou la déglutition de la restauration délogée ou fragment dentaire, et la douleur, ce qui peut conduire à l'incapacité pendant la plongée et l'interruption prématurée de plongée planifiée.

Le terme barodontocrexis (barométriquement induit "explosion de dent", grec), je sais que ça semble terrible! décrit le phénomène de fracture dentaire. La plupart des rapports concernant les fractures dentaires sous les changements barométriques sont associés avec des conditions de vol.

Le barotraumatisme dentaire se produit durant la remontée; Après avoir terminé une plongée, le plongeur peut signaler qu'une dent s'est cassée ou a éclaté. Le barotrauma dentaire peut apparaître avec ou sans douleur similaire à la fracture dentaire se produisant au niveau du sol.

Les facteurs prédisposants qui sont apparus à plusieurs reprises dans les rapports de barotrauma dentaire étaient des restaurations pré-existantes avec fuites et / ou des lésions carieuses récurrentes sous la restauration dans la dent touchée avant l'exposition aux changements barométriques.

Les changements de pression dans les microbulles dans la couche de ciment sous les couronnes peuvent conduire à une réduction significative de la rétention de la couronne et peuvent même se déloger.

La barodontalgie est une douleur intra-buccale évoquée par un changement de pression barométrique, dans une cavité buccale autrement asymptomatique ou normale. Dans un environnement de plongée, cette douleur est communément appelée squeeze dentaire. Bien que rares, la plongée ou la barodontalgie en vol peut causer un plongeur d'avoir des vertiges et produire une incapacité soudaine qui pourrait compromettre la sécurité de la plongée. La barodontalgie est un



THE SAFETY STOP

COJO's MONTHLY NEWSLETTER

symptôme plutôt qu'une condition pathologique elle-même et dans la plupart des cas reflète un flare-up de la maladie préexistante orale ou dentaire.

La douleur apparaît à une profondeur d'eau de 33 pieds et plus profond, généralement à une profondeur de 60 à 80 pieds. Les dents supérieures sont plus fréquemment touchées que les dents inférieures et la grande majorité des épisodes sont survenus à la descente, ce qui peut indiquer un rôle plus important des sinus maxillaires dans la cause de la barodontalgie de la plongée.

Donc que pouvons-nous faire pour éviter le développement d'un barotrauma dentaire? Votre dentiste doit effectuer des mesures préventives et vous interroger périodiquement (le plongeur) et rechercher des pathologies telles que des restaurations avec fuites et des lésions carieuses secondaires. Votre dentiste doit être mis au courant que vous êtes un plongeur et être noté à votre tableau dentaire.

Pour la prévention du déplacement et de l'aspiration, vous ne devez pas plonger avec des restaurations provisoires ou un ciment temporaire dans la bouche et le ciment de résine doit être utilisé lors du traitement sur un plongeur. La restriction temporaire à la plongée après chirurgie dentaire et chirurgicale reste un outil puissant pour la prévention de la barodontalgie postopératoire. Vous ne devriez pas plonger 24 heures d'un traitement réparateur nécessitant une anesthésie et au moins sept jours après avoir subi une intervention chirurgicale.

Donc, comme l'entretien de votre équipement de plongée prenez soin de votre santé bucco-dentaire pour éviter tout problème.

Bonne plongée !!
Happy dives!!

David Petrie, DMD, FIAO, FACCP
Instructeur PADI / SDI



THE SAFETY STOP

COJO's MONTHLY NEWSLETTER

COJO Financing Options Now Available!!

For purchases as low as \$499, COJO customers (OAC) can now take advantage of no-interest and low-interest options with payment plans up to 36 months.

Canex No-Interest Payment Plan

\$499.99 - \$6,500 up to 36 months

For serving and retired military members and their families, RCMP, DND staff and other serving members and staff, the Canex plan is an excellent option! Contact us for more details or click the logo to go to the Canex site:



COJO Diving Financial Services

\$2,000 - \$10,000 up to 36 months

COJO Diving Financial Services is a great low-interest option for all customers looking to keep existing their existing credit line open! No fees and we offer an early payout option as well!



For more details go to our website:

[Financing Options](#)



THE SAFETY STOP

COJO's MONTHLY NEWSLETTER

Other Great Programs from COJO!

COJO Discount Program

We offer several discount options for our military, EFR workers, full-time students, and supporters of Nature Trust of NB!

Read more [here](#).

COJO "Rent To Own" Program

The **COJO "Rent to Own" Program** is born from the need for divers to get into their own gear sooner. You've already decided the diving sport is awesome and you want to go diving as much as you can! But spending money on rental gear doesn't allow you to save up to buy your own gear. This program supports your dive habit AND gets you into your own gear sooner!

Read more [here](#).

COJO Weight Replacement Program **NEW!!**

At COJO Diving we understand that emergency situations happen, and it may be necessary for divers to ditch their weights in order to achieve positive buoyancy at the surface. If you purchased your weights from COJO, contact us on how to replace your weights FREE of charge.

Read more [here](#).

COJO Pony / Bail-out Refill Program **NEW!!**

At COJO Diving we strongly encourage all divers to carry a completely independent air source for emergency bail-out situations. We will top-up and refill pony bottles following use in an emergency or following annual inspections or hydros, or just any time to bring those tanks up to full pressure.

Read more [here](#).



THE SAFETY STOP

COJO's MONTHLY NEWSLETTER

Featured Course **3 to 4 June** **PADI Rescue Diver Course**



Cost \$300.00 + HST

Challenging and rewarding best describe the Rescue Diver course. Building on what you've already learned, this course expands on what you already know about how to prevent problems and how to manage them if they occur!!

Pre Requisites for the PADI Rescue Diver course

- 12 years or older
- Have a PADI Adventure Diver cert (or equivalent from other agency)
- Be trained and current (with proof) of first aid and CPR

Schedule

- Online training and exam – Prior to 1 June
- June 3, 10am – Meet and Greet and e learning (Atlas Parc)
- June 3, 1pm to 5pm – Training Dives
- June 4 – 10am to 2pm – Training Dives
- June 4 – 2pm to 3pm – Log books



THE SAFETY STOP

COJO's MONTHLY NEWSLETTER

Gear Highlight!



We are thrilled to be a dealer for Ikelite, who provide a full line of housings, strobes and accessories for underwater photography for beginning divers up to full professional photography! Just ask Connie how many cameras and housings she has!!

Featured Product



The Canon Rebel SL1 Camera Kit is a camera system that is ready to use right out of the box! The Rebel SL1 is a sweet sized SLR that provides high image quality and sized to go on every dive. The kit includes the housing, camera, 18-55mm lens, zoom sleeve and dome port. Add a tray, arms and strobes for the ultimate underwater SLR solution! Contact us for info!!

Canadian MSRP \$2,275+HST
(Only \$74/month on Canex 36mo plan!)



THE SAFETY STOP

COJO's MONTHLY NEWSLETTER

COJO "Throwback" Pic!

April 2013 – Folly Cove, MA

We didn't get to dive Folly that day as it was too rough, but a great day with friends and a good time at the Boston Sea Rovers that year!!

(L-R - Wayne, Diver Ed, Andy, Zach, Connie, Joe, Jerry)



Photo Credit: Edna Leone Martin & Diver Ed



THE SAFETY STOP

COJO's MONTHLY NEWSLETTER

Other Awesome News!!

Congratulations to COJO's very own Jaw Breaker, David Petrie on completing his SDI Ice Diver Instructor certification!! What an awesome accomplishment!! I'm sure after completing a course like that you could almost pee your pants or something!! Great Job David!! Woo hoo!!

Great job to all the PADI Seal Team members on completing the final Aquamission!! A great addition to the COJO / PADI Seal Team!! Woo hoo!!

Be on the lookout for SEAL specialty courses this fall and winter!!



We would love for you to follow us on [Facebook](#). Become a [friend](#) of [COJO Diving](#) at <http://www.facebook.com/COJODiving> or join us on Twitter ([@cojodiving](#)) or Instagram ([COJO Diving](#))

COJO also has a YouTube Channel where you can view some of our dives as well as training videos. It is constantly being updated so don't miss out!!

[Click for COJO YouTube Channel](#)

Thanks and we are looking forward to diving with you soon!!

Connie and Joe!!