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**ASPETTI LEGALI NELLE ATTIVITA' SUBACQUEE**  
**BOLZANO 12 OTTOBRE 2012**

La prevenzione primaria per la sicurezza delle attività  
subacquee professionali:  
risvolti procedurali, operativi, medici ed assicurativi

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International School of Baromedicine, Belgrade University Medical School

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**Abbiamo un problema?**



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Anche se l'incidenza dell'infortunio da immersione è bassa, la dimensione del campione di riferimento fa sì che i numeri assoluti siano comunque considerevoli



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Il problema, quindi, esiste e comporta oneri sanitari, economici, assicurativi, quando non giudiziari



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# Activity Exposure Analysis

» Duty of Care?

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### Recreational Scuba Diver

- ▶ Buddy Liability
- ▶ Causing injury on land or in the water
  - Mask removal / Air block
  - Hitting someone on the head with tank
  - Injuring someone with harpoon / knife
  - Injury to rescuer and/or his equipment
  - Dropping tank on 3<sup>rd</sup> party foot
  - Hazardous storage of equipment
- ▶ Failure to assist or incorrect Rescue
- ▶ Damage to equipment of 3<sup>rd</sup> parties

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### The Dive Master / Guide

- ▶ Incorrect instruction
- ▶ Incident to students undergoing refresher course
- ▶ Failure to assist properly the instructor
- ▶ Incorrect or dangerous indications to divers
- ▶ Incorrect assistance in equipment set-up
- ▶ Failure to provide proper rescue
- ▶ Provision of services or advice beyond his qualification / authority

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### The Scuba Dive Instructor

- ▶ Freelance Instruction to non-qualified Divers
- ▶ Freelance Instruction Courses to qualified Divers
- ▶ Provision of First-Aid courses
- ▶ Freelance services to Dive Centres and Amateur Clubs as a:
  - Scuba Diving Instructor
  - Scuba Diving Guide
- ▶ Working as an employee of Dive Centres

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### The Scuba Course Director

- ▶ Incorrect or inadequate instruction to clients
- ▶ Use of unqualified personnel

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### The Diving Centre

- ▶ Sale of Scuba Diving Instruction Courses to non-qualified Divers
- ▶ Sale of Scuba Diving Instruction Courses to qualified Divers
- ▶ Sale of First-Aid courses
- ▶ Rental of Equipment
- ▶ Refill of Aqualung Tanks
- ▶ Equipment Maintenance
- ▶ Equipment Sales - products liability
- ▶ Provision of Scuba Dive Guide services
- ▶ Organisation of Boat Dives
- ▶ Organisation of Dive Tours/Trips abroad

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### The Amateur Scuba Diving Club

- ▶ Similar liabilities to a Scuba Diving Centre but is duty of care the same considering they are providing the service against a membership fee instead of a pay-as-you-go payment?
- ▶ What is contractual relationship?
- ▶ Non-profit exonerates from responsibility?
- ▶ Vicarious liability for instructors/guides engaged via the club?

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## The Dive Tour Operator

- ▶ Subject to Package Travel Directive when offering at least 2 of the following and covering a period of more than 24 hours:
  - Transport
  - Accommodation
  - Other tourist services
- ▶ Directive imposes Strict Liability

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## Scuba Instruction Federations

- ▶ Liability for inadequate standards of training materials which might avoided prevention, be the cause or a contributory cause to an accident, or which might have worsened the effects and consequences of an accident.

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Riassicurazioni Internazionali  
+  
Aumento della sinistrosità RCT  
=  
Modello assicurativo Nord-Americano



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DIVERS ALERT NETWORK

L'aspetto medico e le  
ricadute assicurative



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DIVERS ALERT NETWORK

Il subacqueo opera in un ambiente  
straordinario, non solo per bellezza, ma  
anche per caratteristiche fisiche,  
climatiche e di rischio



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DIVERS ALERT NETWORK

L'accertamento di idoneità ad operare  
in un simile ambiente necessita di  
conoscenze particolari che richiedono  
uno specifico addestramento



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Solo così si potranno efficacemente prevenire, evitare, curare incidenti, i cui risultati possono essere gravi, inabilitanti e di alto costo sociale



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**Riprendere le immersioni senza retraining**



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**Condizioni mediche pre-esistenti o terapie non dichiarate / sottovalutate**



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### Problemi di Compensazione Raffreddori e Allergie



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L'idoneità medica all'immersione assume particolare importanza quando un subacqueo abbia una responsabilità didattica o di tutela verso altri subacquei



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In caso di incidente provocato o facilitato da una condizione medica controindicante non accertata:

imperizia, negligenza, imprudenza?  
colpa grave?



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Questo potrebbe compromettere la validità di eventuali coperture assicurative.



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Rispetto delle linee guida ECHM-EDTC e di norme di buona tecnica e «risk assessment» definite:

➤ ricadute positive su:

- ✓ eventuale responsabilità dell'istruttore
- ✓ entità dei premi assicurativi
- ✓ Soddisfazione e diritti del consumatore



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**HIRA**  Sicurezza attiva e partecipata

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# HIRA

Hazard Identification and Risk Assessment



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**HIRA**  Sicurezza attiva e partecipata

- HIRA I:
  - Prevenzione **Secondaria**
    - Saper intervenire per emergenze già occorse
- HIRA II:
  - Prevenzione **Secondaria & Primaria**
    - Saper intervenire per emergenza già occorse
    - Saper addestrare terzi alla gestione di emergenze
    - Esercitazioni di gestione emergenze, consapevolezza
- HIRA III:
  - Prevention **Secondaria, Primaria & Primordiale**
    - Come sopra, PIU' prevenire l'insorgenza di emergenze: operazioni più sicure attraverso HIRA mirata & miglioramento continuo
    - Auto-accertamento & analisi
    - Addestramento di educatori



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**HIRA**  Sicurezza attiva e partecipata

### HIRA & HACCP

- Registro di tutti gli incidenti (inclusi dati denominatore e incidenti sfiorati)
- Analisi dei dati
- Addestramento all'identificazione dei **“Critical Control Points”**
- Miglioramento continuo

Rigoroso Assessment da parte di terzi qualificati?



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## Lombalgie




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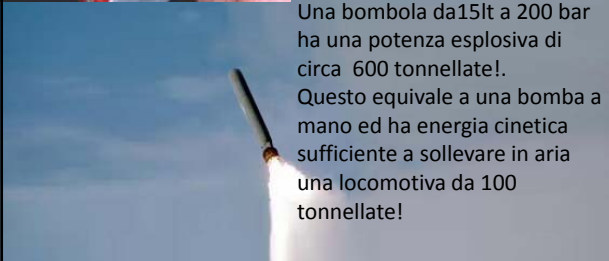
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### Esplosione bombole



Una bombola da 15lt a 200 bar ha una potenza esplosiva di circa 600 tonnellate!. Questo equivale a una bomba a mano ed ha energia cinetica sufficiente a sollevare in aria una locomotiva da 100 tonnellate!



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### Ecco cosa accade quando una bombola esplode in un'auto



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### Superfici irregolari, scivolose, instabili



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### Impigliamento



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Condizioni ignote e impreviste  
Freddo – Scarsa Visibilità – Penetrazione  
**PANICO!**



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Abbiamo un problema?



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**SI!!**  
Ma abbiamo anche gli  
strumenti per risolverlo

Consapevolezza, competenza,  
cultura, prudenza,  
**BUON SENSO!**



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