Project Dive Exploration

With Project Dive Exploration (PDE), DAN's goal is to record dive profiles to produce statistically accurate analyses of dive profiles, diver characteristics and diver behaviour.

PDE is a prospective observational study of the demographics, medical history, depth-time exposure and medical outcome of a sample of the recreational diving population. PDE seeks to estimate the incidence of decompression sickness (DCS) in population subgroups and to investigate the relationship of DCS probability to depth-time profile and dive and diver characteristics. PDE also provides an injury-free control population for comparison with DAN's injury and fatality data to identify possible risk factors associated with injury and death.

PDE profiles – essentially road maps of each dive recorded on dive computers – are collected by volunteers and delivered to DAN electronically using the dive computer's dive log software. DAN researchers analyse the data to increase their understanding of the relationship of the risk of decompression illness (DCI) to a myriad of physical, medical and behavioural factors. The results of this study are likely to form the basis of future dive table and dive computer models.

PDE has multiple objectives, including:
- Collecting real-time depth-time profiles for analysis
- Documenting the condition of the diver 48 hours after the end of the dive series
- Documenting any health changes in the diver, whether related to diving or not
• Investigating the relationship between diving and health effects by using statistical analysis and modelling
• Developing a flexible, low-risk decompression procedures for multilevel, multiday repetitive diving
• Studying the effects of flying after diving