

## Swim or Float? An evidence-based approach to reducing the risk of rip related drowning in Australia

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### Background/Introduction

Rip currents are the major cause of beach drowning and surf rescue in Australia. It is difficult to accurately measure the number of rip related drowning deaths, though it is likely on the order of 30–40 each year. In 2009, SLSA launched an ongoing national rip education campaign based on a behavioural response message for swimmers ‘to escape a rip, swim parallel to the beach’. This message is common advice promoted around the world by various beach safety practitioners in regards to rip currents. Subsequently a debate has been raised within the world of rip current education as to the appropriateness and preference of the ‘swim parallel’ versus ‘stay afloat’ responses for swimmers caught in rips. Much of the debate has been based on anecdotal information.

### Aims/Objectives

To describe an evidence-based multidisciplinary program of research that aims to reduce the risk of rip related drowning.

### Methods/Implementation

Multidisciplinary methods of epidemiology, geomorphology and behavioural science are combined to improve our understanding of the flow behaviour of rip current systems and the physical response of people caught in rips. Research on rip dynamics will be undertaken using GPS to determine rip flow direction and velocity. Additional in-depth interviews of beachgoers rescued from rip currents will identify the demographics, surf knowledge and behavioural response of those caught in rip currents. A comparison of rip survival strategies will determine outcomes of active (swim parallel, diagonal or against the rip) vs. passive (float) rip responses. The effectiveness of subsequent educational campaigns will be assessed using impact and process evaluation.

### Results and Conclusion

The unique multidisciplinary approach adopted will assist in ongoing clarification of the most appropriate evidence-based messages relating to beachgoer response when caught in a rip current. Rigorous evaluation will ensure that the message has maximal impact on beachgoers at risk of rip related drowning.

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