

# Survey of Injuries, Illnesses, Gear Failures and Incidents in the Newport to Bermuda Races of 1998, 2000, 2002, 2004, 2006, 2008, 2010

## Introduction:

**How the survey was conducted:** Beginning in 1998 skippers in the Newport Bermuda race turned in a form surveying the injuries and illnesses that occurred on their boat during the race. Injuries were categorized by anatomic location and type, defined mostly in lay terms because the target audiences for the survey were future race participants and the sailing community in general. For the same reason illness were treated in similar general terms. In 2004 the survey was expanded to include gear failures and “incidents” such as man overboard, collision, fire, flooding, et cetera. Skippers were in no way handicapped or punished for reporting any information on the survey and all information regarding yachts has been kept confidential and the names of crew were never recorded. The CCA Fleet Surgeon alone collated the information from the survey forms.

**Scope of the Survey:** There a total of 1336 entries in the past seven Bermuda Races, the average size of the crew being nine. 1202, or 90% of the finishing 1084 skippers returned the forms. Recognizing that there is an element of underreporting, there were 85 injuries and 18 medical conditions not related to trauma, excluding the 65 boats that reported sea sickness among one or more crew members. A small number of injuries came to the attention of the Fleet Surgeon after the race and amended to the survey. On the return trip after the 2008 race, a head injury (concussion and severe scalp laceration) was the subject of a crew evacuation by the USCG and standby attention by the cruise ship Norwegian Princess, which crossed the path of the Fleet Surgeon’s vessel on its way to the scene. In the same passage a crew member on another vessel, captained by the mechanic who services the Fleet Surgeon’s vessel in Newport, sustained 3 broken ribs and was secured in his bunk for the remainder of the trip back.

Concussions occurred, but there were no head injuries with permanent neurological damage nor were there any spinal cord injuries identified.

The results of the survey for the 1998-2006 races have been published [Nathanson et al, BRIEF REPORT: Injury and Illness at the Newport-Bermuda Race 1998–2006, *Wilderness and Environmental Medicine*, 19, 129 132 (2008)], a pdf version of which can be found in the Fleet Surgeon’s section of the Bermuda Race website.

## Results of the Survey:

### **Overview of Survey Reports gathered from Newport Bermuda Races 1998-2010:**

	<b>Totals</b>	<b>1998</b>	<b>2000</b>	<b>2002</b>	<b>2004</b>	<b>2006</b>	<b>2008</b>	<b>2010</b>
Number Boats Entered	<b>1336</b>	176	177	182	157	263	198	183
Nnumber Boats Finished	<b>1267</b>	139	176	173	145	260	191	183
Reports turned in	<b>1202</b>	81	170	173	152	260	187	179
Reports with injury/illness	<b>122</b>	10	22	36	4	11	28	11
Reports with Gear Failure	<b>60</b>						44	16

**Table 1. Injuries**

		85	1998	2000	2002	2004	2006	2008	2010
	<b>Total Injuries</b>	<b>85</b>							
<b>Head</b>	<b>Total Head Injuries</b>	<b>8</b>							
	Bruise		1					1	
	Cut					1	1	2*	
	Concussion							1	1
<b>Face</b>	<b>Total Face Injuries</b>	<b>4</b>							
	Scrape			1				1	
	Cuts				2				
<b>Toes</b>	<b>Total Toe Injuries</b>	<b>3</b>							
	Cut			1				1	
	Fracture							1	
<b>Leg</b>	<b>Total Leg Injuries</b>	<b>13</b>							
	Bruise				2				9
	Scrape		1						
	Pulled Tendon						1		
<b>Knee</b>	<b>Total Knee Injuries</b>	<b>2</b>							
	Sprain				1			1	
<b>Foot</b>	<b>Total Foot Injuries</b>	<b>5</b>							
	Fracture				1				
	Burn galley						1		
	Cut							1	
	Scrape								1
	Sprain								1
<b>Shoulder</b>	<b>Total Shoulder Injuries</b>	<b>2</b>							
	Possible Fracture							1	
	Dislocation								1
<b>Arm</b>	<b>Total Arm Injuries</b>	<b>9</b>							
	Unspecified							3	
	Bruise								6
<b>Hand</b>	<b>Total Hand Injuries</b>	<b>8</b>							
	Cut				1				
	Burn galley						1		1
	Rope burn						1		
	Sprain						1		
	Unspecified							3	
<b>Fingers</b>	<b>Total Finger Injuries</b>	<b>18</b>							
	Cut		4	2	4		1		
	Fracture		1	1					
	Bruise						1		
	Dislocation								1
	Unspecified							3	
<b>Neck</b>	<b>Total Neck Injuries</b>	<b>1</b>							
	Strain				1				
<b>Back</b>	<b>Total Back Injuries</b>	<b>8</b>							
	Bruise/Strain			3	1			1	3
<b>Chest</b>	<b>Total Chest Injuries</b>	<b>3</b>							
	Fracture Rib							1*	
	Bruise								2
<b>Abdomen</b>	<b>Total Abdomen Injuries</b>	<b>1</b>							
	Bruise								1

(\* 1 head injury and 1 rib fracture on return trip, 2008)

**Table 2. Factors Contributing to Injuries**

	<b>Total</b>	1998	2000	2002	2004	2006	2008	2010
Climbing Mast	<b>1</b>						1	
Cooking	<b>4</b>					2		2
Darkness	<b>1</b>	1						
Fatigue	<b>2</b>	1						1
F'deck hatch left open	<b>1</b>		1					
Gear failure	<b>2</b>					1	1	
Heavy Weather	<b>18</b>		4	7		1	3	3
Inattention	<b>1</b>	1						
Inexperience	<b>1</b>					1		
Jibing	<b>1</b>			1				
Knife (galley;sail locker)	<b>2</b>		2					
No Shoes	<b>1</b>		1					
Pin fell out of vang	<b>1</b>	1						
Sail change	<b>4</b>		2				1	1
Sharp edge on Runner	<b>1</b>	1						
Tacking	<b>1</b>							1

**Table 3. Illnesses (medical conditions not related to trauma)**

<b>Total Illnesses (except sea sickness)</b>	<b>18</b>	1998	2000	2002	2004	2006	2008	2010
Choking	<b>1</b>					1		
Constipation	<b>1</b>	1						
Diabetes/dehydration	<b>2</b>			1				1
Diarrhea	<b>1</b>	1						
Headache	<b>1</b>					1		
Hypothermia	<b>1</b>							1
Ingestion sea water	<b>1</b>							1
Insomnia	<b>1</b>	1						
Leg infection	<b>2</b>	1					1	
Migraine	<b>1</b>					1		
Sun Burn	<b>3</b>		1			1		1
Syncope (fainting)	<b>1</b>						1	
Urinary retention	<b>1</b>						1	
Urinary tract infection	<b>1</b>			1				
<b>Seasickness (# of boats)</b>	<b>65</b>	1	13	26	3	3	15	4

**Table 4. Radio/Satellite Calls for Medical Assistance**

<b>Total medical calls</b>	<b>10</b>	1998	2000	2002	2004	2006	2008	2010
Arm infection (cellulitis)	<b>1</b>						1	
Back injury	<b>2</b>		2					
Face injury	<b>1</b>			1				
Head Injury	<b>2</b>						2*	
Leg infection	<b>1</b>	1						
Sea sickness	<b>1</b>		1					
Sea water ingestion	<b>1</b>							1
Urinary tract infection	<b>1</b>			1				

(\* indicates one of head injuries on return trip)

**Table 5. Crewmembers Removed from Vessel**

<b>Total crewmembers removed</b>	<b>4</b>	1998	2000	2002	2004	2006	2008	2010
Back injury	1		1					
Cut Finger (St Georges)	1			1				
Diabetes/dehydration (St Georges)	1			1				
Head Injury, scalp laceration	1						1*	

**\*On return trip. (Responders: cruise ship Norwegian Princess standing by; USCG SAR)**

**Table 6. Gear Failures (with or without injury) 2004 and after.**

<b>Total Gear Failures</b>	<b>68</b>	2004	2006	2008	2010
"Equipment failure" - withdrew	1	1			
Alternator	3			2	1
Battery isolator failed	1	1			
Binnacle and compass broken by mainsheet during accidental gybe	1	1			
Boom	1			1	
Collision	2			2	
Electrical	5			5	
Engine	3			2	1
Fire	1			1	
Flooding	1			1	
Generator	2			2	
Jib tack line parted (rope burn)	1		1		
Lifeline	3			1	2
Lightning strike	4			1	3
MOB	2			1	1
Prop lost	1				1
Rigging	18			13	5
Sail	5			5	
Seacock	1			1	
Spinnaker block and boom broke	1	1			
Steering	9	2		4	3
Toilet detached from deck	1			1	
Watermaker	1			1	

Edwin G. Fischer, MD  
Fleet Surgeon, Cruising Club of America  
October, 2011