



Injuries associated with failure or malfunction of bicycle parts

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Introduction

The information contained in this report has been derived from the Injury Surveillance Information System (ISIS). ISIS is an injury database maintained by the National Injury Surveillance Unit. It contains records of emergency department attendances drawn from a sample of approximately 50 Australian hospitals since 1986. The ISIS system is well suited for characterising the circumstances of individual and similar groups of cases. It is not, however, amenable to accurately describing the incidence of particular types of injury in the population due to biases arising from the mix of participating hospitals.

There was a total of 1,083 cases of injury in the database in which a bicycle part was reported to have failed or malfunctioned. In order to determine which parts were problematic, it was necessary to scrutinise the individual case descriptions - a random sample of 229 cases (22 per cent) was selected for this purpose, being a sufficient number to allow description of the major problems. The following account is based on the sample of 229 cases.

It should be borne in mind that information is reported by the injured person or their representative at the time of attendance in the emergency department. Thus, reports of failure or malfunction have not been objectively validated. Nonetheless, the information obtained is useful in that it reveals the types of problems and difficulties that can arise. Some of these may indeed be examples of genuine product failure, while others may indicate opportunities to improve product designs.

Age and sex of injured persons

As might be expected, children are at greatest risk of being injured. The most common age-group reporting injury in this sample of cases was the 10-14 years group (Table 1). This age-group is known to be the highest risk group for bicycle related injury. The excess risk probably attributed to an increase in exposure to bicycling at this age, in combination with a relative inexperience of handling unfamiliar situations. This latter factor may be particularly important for some of the problems that will be described below. For example, coping with a chain coming off a bike may be beyond the capabilities of an inexperienced rider whereas it poses little difficulty for a more experienced rider.

CHILD CASES (0 TO 14 YEARS)

Age group	Number	Per cent
0-4	4	2.3
5-9	37	21.4
10-14	132	76.3
Total	173	100.0

ADULT CASES (15 OR MORE YEARS)

Age group	Number	Per cent
15-29	49	87.5
30-44	4	7.1
45-59	2	3.6
60-74	1	1.8
Total	56	100.0

For both child (0 to 14 years) and adult (15 or more years) cases, the sex distributions were identical: eighty-two per cent male, 18 per cent female.

Location of injury

Most of the injuries took place on public roads (72 per cent), where there is great potential for conflict with motor vehicles and other road users. Around five per cent of cases occurred on footpaths and a further five per cent in a private yard or garden.

Severity and type of injury

An indication of the severity of these injuries is given by the level of treatment that was obtained at hospital. The disposal patterns for child and adult cases were fairly similar, although there was an indication that child cases more frequently required significant treatments and admission.

Level of treatment	% of child cases	% of adult cases
None	3	4
Minor	31	38
Significant	49	44
Admission	17	14
Total	100	100

Cuts and lacerations were the most commonly reported injury (22 per cent of cases), followed by fractures (21 per cent), bruising (17 per cent), abrasions (17 per cent), dislocations (7 per cent) and concussion (7 per cent). The upper extremities were the most frequently injured body part (58 per cent of cases), then came the head (33 per cent), lower extremities (32 per cent) and trunk (8 per cent).

Part associated with failure

The descriptions of the events leading to the injury were scanned and classified according to the part of the bike that was reported to have malfunctioned or failed. The distribution of these parts is presented below:

Part of bicycle	N	Per cent
Chains / gears	78	34.1
Brakes	72	31.4
Wheels	41	17.9
Handlebars	14	6.1
Pedals / cranks	7	3.1
Saddle	1	0.4
Other	16	7.0
Total	229	100.0

Chains

The most common mishap involving chains was them coming off while the bicycle was in use. Chain breakage was also reported. These events often led to a loss of control of the bicycle with subsequent collisions with other objects. The frequency of this mishap suggests that attention to the design of chains and gear mechanisms to lessen the occurrence of slippage is warranted. It may be that children's bicycles need more scrutiny in this regard than adult bicycles.

Brakes

While many of the cases that reported brake failure seemed to involve events such as brakes locking up and drastic application of front brakes causing the rider to fall forwards and off the bike, and therefore are not strictly cases of failure, there is an obvious concern that children are having difficulty in correctly operating the brake mechanisms fitted to their bikes. Further research is necessary to establish the most appropriate braking mechanisms for children's bicycles - this may for example involve only fitting rear wheel brakes. More attention is needed in properly educating young cyclists on the correct application of brakes, as is attention to proper maintenance of brake pads and cables. Brake cables were reported to get snagged in the front wheel and this situation may be able to be rectified by improved product design.

Wheels

Wheels often fell off bicycles, most frequently the front wheel. This problem may require careful investigation of the assembly of bicycles, particularly the structural integrity of frame joints and bearings. The fitting of after-market parts such as forks, headstems, and handle-bars may affect the safety of bicycles, and the safety of these products should also be considered.

Handlebars

The problems here were several: breakage of handlebars; loosening of handlebar assemblies; and handle grips falling off. As with all the other parts considered above, failure can have very severe consequences due to loss of control of the bicycle in traffic streams. Consideration of safety standards for each of these situations may be required.

Pedals and cranks

There were a number of instances of structural failure of these parts, suggesting that attention be given to the material strength of these parts.

Summary

The various problems identified in this report with chain assemblies, brakes, wheels, handlebars and grips, and pedals all pose significant safety hazards to young bicycle riders. The severity of the threat is important because loss of control of the bicycle can lead to collisions with other motor vehicles, as well as high speed collisions with the ground and other objects. Further research is needed to investigate the mechanisms underlying these apparent product failures and malfunctions. For example, the extent to which these problems apply to new bicycles as opposed to older bicycles, and the relative contribution of inadequate maintenance cannot be determined unless in-depth investigations are undertaken.

Summary descriptions of the events leading to injury are available here. These are grouped according to the part which reportedly malfunctioned or failed:

-
- [BRAKES](#)
 - [WHEELS](#)
 - [CHAINS OR GEARS](#)
 - [PEDALS](#)
 - [HANDLEBARS](#)
 - [SADDLE](#)
 - [OTHER](#)



BRAKES

BRAKES FAILED JUMPED FROM BIKE HIT BITUMEN
 BRAKES FAILED HIT WALL
 FRONT BRAKES LOCKED ON BIKE AND SHE LOST CONTROL , FELL HITTING ROAD
 RIDING BIKE, BRAKES FAILED ON BIKE, LANDED ON ROAD
 VICTIM RIDING, BIKE, BRAKES FAILED, VICTIM FELL 5 FT
 RIDING BIKE BRAKES DIDN'T WORK RAN INTO PILE OF STEEL
 RIDING BIKE, BRAKES LOCKED, LANDED ON GROUND
 RIDING DOWN HILL BACK BRAKES JAMMED FELL LANDED ON ROAD
 BRAKES ON BIKE FAILED, LOST CONTROL AND LANDED ON CONCRETE
 RIDING BIKE, BRAKES LOCKED AND VICTIM LANDED ON SHOULDER.
 BRAKES LOCKED ON APPLICATION.THROWN OVER HANDLEBARS. LANDED ON ASPHALT.
 RIDING BMX BIKE. BRAKES LOCKED; LANDED ON ROADWAY.
 RIDING BIKE, BRAKES STUCK. LANDED ON CONCRETE DRIVEWAY.
 RIDING BIKE, FRONT BRAKE CAME OFF & CAUGHT IN WHEEL, FLIPPED BIKE OVER
 RIDING BICYCLE. BRAKES FAILED; VICTIM JUMPED OFF BIKE; BIKE HIS HER FOOT.
 BRAKES FAILED ON BIKE CHILD WAS RIDING ON ROAD, LOST CONTROL, FELL BITUMEN
 RIDING BIKE. BRAKES NOT WORKING WELL. RAN INTO BACK OF STATIONARY TRUCK.
 BRAKES FAILED ON BIKE, THROWN OVER HANDLEBARS ONTO ROAD
 RIDING BIKE, BRAKES FAILED, FELL OFF BIKE ONTO CONCRETE BMX
 RIDING BICYCLE - BRAKES FAILED, COLLIDED WITH CAR, THROWN FROM BIKE
 RIDING BIKE, BRAKES FAILED & FELL OFF BIKE, LANDED ON ROAD
 RIDING A BIKE, BRAKES FAILED, HIT A CAR
 RIDING A BIKE, BRAKES FAILED, FELL DOWN 28 STAIRS, LANDED ON CONCRETE
 RIDING A BICYCLE, BRAKES GOT CAUGHT, LANDED ON CONCRETE
 RIDING BIKE DOWN HILL AND BRAKES FAILED HIT SIDE OF A CAR
 BICYCLE, BRAKES LOCKED, PATIENT FELL HEAD OVER HEELS ONTO ROAD
 BRAKES LOCKED ON BICYCLE, FELL OFF.
 BRAKES FAILED FELL OFF BIKE
 BRAKES FAILED RAN INTO A TREE
 PBA - BRAKES FAILED AND COLLIDED WITH CAR
 COULDN'T APPLY BRAKES SUFFICIENTLY, RAN OUT OF STREET, FELL.
 FRONT BRAKE FELL INTO FRONT WHEEL, FELL TO ROAD.
 RIDING BIKE, LOCKED BRAKES WENT OVER HANDLEBARS
 RIDING BIKE BRAKES FAILED KNOCKED OVER BY A CAR
 BRAKES FAILED ON BIKE, FELL OFF ONTO ROAD
 RIDING BIKE, BRAKES NOT WORKING, FELL AND KNEE HIT STONE
 CHILD RIDING BIKE, BRAKE JAMMED & CHILD FELL OFF OVER HANDLEBARS.
 RIDING A BICYCLE, BRAKES FAILED, HIT STATIONARY CAR, FELL ON FACE
 PBA - BRAKES FAILED AND WENT OVER HANDLEBARS
 RIDING A BICYCLE. BRAKES DIDN'T WORK FELL FROM BICYCLE TWICE.
 RIDING A BIKE, BRAKES FAILED AND VICTIM FELL OVER HANDLE BARS.
 RIDING BICYCLE, BRAKE FAILED AND VICTIM LANDED ON CONCRETE.
 RIDING A BIKE, BRAKES FAILED, THROWN OVER A CAR
 RIDING BIKE BRAKES FAILED FELL ON ROAD
 BRAKES FAILED ON BIKE, FELL SIDEWAYS ONTO ROAD
 RIDING BIKE, BRAKES FAILED FELL AND LANDED ON CONCRETE
 RIDING BIKE BRAKE CABLE SNAPPED & WHEEL LOCKED CHILD FELL ONTO FOOTPATH
 RIDING BICYCLE BRAKES FAILED AND HIT THE GUTTER

EXERCISING ON A PUSHBIKE. BRAKES FAILED. FALLING OF BIKE.
RIDING BIKE, DIDN'T BREAK, NO BRAKES OR TOO DIFFICULT TO USE, RAN INTO KERBSIDE.
RIDING A BIKE, BRAKES FAILED CAUSING FALL ONTO GRAVEL
RIDING BICYCLE, BRAKE CABLE BROKE FELL OFF BIKE ...NOC...
RIDING BIKE, BRAKES FAILED AND HIT PARKED CAR
RIDING BIKE CABLE SNAPPED RAN INTO POLE
RIDING BIKE BRAKES FAILED RAN INTO KERB FELL ONTO HANDLE BARS
BICYCLIST BRAKES FAILED WHILE ROUNDING A CORNER CASHING HIS LEG ON A PEDAL
RIDING BIKE BRAKES FAILED CRASHED INTO TREE HURT HIP
RIDING BIKE, BRAKES FAILED, BIKE AND CHILD FELL ONTO GRAVEL.
RIDING HOME BRAKE CAME LOOSE ON BIKE CAUGHT WHEEL FELL OFF BIKE
RIDING BIKE BRAKES FAILED FELL OFF ONTO CONCRETE
RIDING BIKE WHEN BRAKES FAILED AND HIT FENCE
RIDING BIKE, BRAKES LOCKED UP IN WET CONDITIONS, FELL OFF ONTO GRASS.
BRAKES FAILED FELL OFF BIKE CAUGHT FOOT IN SAME
RIDING BIKE WHEN BRAKES FAILED AND CHILD FELL OFF
RIDING PUSHBIKE WHEN FELL OFF BIKE WHEN BRAKES FAILED.
RIDING BIKE DOWNHILL TO INTERSECTION BRAKES FAILED HIT BY CAR
RIDING A BIKE, BRAKES FAILED, BUMPED INTO THE GATE AND FELL OFF BIKE
RIDING BIKE - BRAKES FAILED AND TYRES DIDN'T GRIP DIRT HELMET YES
RIDING BIKE WHEN BRAKES FAILED AND SHE FELL OFF ONTO ROAD
BIKE BRAKES FAILED
RIDING BIKE. BRAKES FAILED AT BEND. BIKE TUMBLED.
RIDING A BIKE, BRAKES FAILED, COLLIDED WITH A FENCE





WHEELS

FRONT WHEEL JAMMED AND FELL HITTING GROUND
 FRONT WHEEL FELL OFF BIKE
 FRONT WHEEL MALFUNCTION AND FELL ONTO ROAD
 LIGHT FITTING ON BIKE CAUGHT IN WHEEL AND LOST CONTROL OF BIKE FELL TO ROAD
 BICYCLE WHEEL LOCKED FELL HIT ROAD
 BACK TRAINER WHEEL GOT CAUGHT TIPPED OVER LANDED ON CONCRETE
 WHEEL CAME OFF BIKE, FELL ONTO CONCRETE
 FRONT WHEEL CAME OFF BIKE HIT AGAINST ASPHALT
 WHEEL FELL OFF BIKE HIT AGAINST GROUND
 RIDING BIKE, FRONT WHEEL CAME OFF, LANDED ON GRAVEL ROAD
 FRONT TYRE CAME OFF BICYCLE, FELL TO THE ROAD
 RIDING A BICYCLE, FRONT WHEEL CAME OFF BICYCLE, WENT OVER HANDLE BARS
 RIDING PUSH BIKE, WHEEL NUTS WERE LOOSE, WHEEL CAME OFF, FELL OVER
 WHEEL CAME OFF BIKE, FELL TO GROUND.
 WHEEL CAME OFF BIKE, FELL ON FACE ON ROAD
 FRONT WHEEL FELL OFF BIKE, LANDED ON ROAD
 RIDING BICYCLE - FRONT WHEEL CAME OFF, FELL ONTO CONCRETE
 COMPETING IN CYCLE RACE. STEM BROKE ON SPOKES OF BICYCLE AT 80KPH, FELL
 CYCLIST. SCREW ON FRONT WHEEL CAME LOOSE; FLIPPED OVER WITH BIKE.
 RIDING BICYCLE - FRONT WHEEL JAMMED, LANDED ON BITUMEN
 RIDING BICYCLE WHEEL CAME OFF BIKE VICTIM LANDED ON GRAVEL & HIT HEAD.
 RIDING BIKE WHEEL CAME OFF FELL LANDED ON ROAD
 RIDING BIKE WHEEL FELL OFF FELL LANDED ON ROAD
 RIDING BMX, FRONT TYRE CAME OFF CAUSING FALL ONTO GROUND
 PBA - WHEELS IN BICYCLE JAMMED UP
 PBA - RIDING A BIKE AND FRONT WHEEL COLLAPSED
 RIDING BIKE WHEN FRONT WHEEL CAME OFF AND CHILD FELL FROM BIKE
 RIDING BIKE FRONT WHEEL CAME OFF CHILD FELL LANDED ON ROAD
 RIDING BIKE FRONT WHEEL CAME OFF LANDED ON GROUND
 RIDING BIKE, WHEEL CAME OFF BIKE WHEN GOING UP GUTTER.
 RIDING BIKE FRONT WHEEL CAME OFF, SKIDDING ALONG RD.
 RIDING A BIKE. FRONT WHEEL FELL OFF BIKE. CUT BY FRONT FORKS.
 RIDING BIKE WHEN FRONT WHEEL CAME OFF AND CHILD FELL ONTO ROAD
 RIDING PUSHBIKE, WHEEL FELL OFF LANDED ON CONCRETE
 FRONT WHEEL FELL OFF AS DID PATIENT
 RIDING HER BIKE FRONT TYRE CAME OFF
 RIDING HIS BIKE FRONT WHEEL CAME AWAY, CATAPULTED FROM BIKE LANDED ON RD
 RIDING BIKE, FRONT WHEEL CAME OFF, FELL ON ROAD
 RIDING BIKE WHEN FRONT WHEEL CAME OFF AND CHILD FELL ONTO PATH
 RIDING PUSHBIKE FRONT WHEEL FELL OFF
 RIDING BIKE WHEN WHEEL CAME OFF AND SHE FELL WITH BIKE LANDING ON HAND





CHAINS OR GEARS

PRACTICING BEFORE RACE AND CHAIN CAME OFF BIKE AND LANDED ON TRACK
 BIKE CHAIN SLIPPED OUT OF GEAR FELL HITTING BITUMEN
 CHAIN CAME OFF BIKE AND HE COLLIDED WITH A PARKED TRUCK FELL ONTO ROAD
 RIDING BMX BIKE CHAIN GOT STUCK FELL HITTING GROUND
 CHAIN CAME OFF WHILE RIDING BIKE, FELL ONTO CONCRETE PATH
 CHAIN FELL OFF BIKE FELL HIT ROAD
 BICYCLE CHAIN FELL OFF/LOST CONTROL OF BIKE/CAUGHT FOOT IN PEDAL/FELL OFF
 CHAIN BROKE ON BIKE FOOT CAUGHT IN WHEEL LANDED ON CONCRETE
 CHAIN CAME OFF BIKE JUMPED OFF BIKE CAUGHT FOOT IN BIKE
 CHAIN ON BIKE STRUCK LEG
 RIDING A BIKE - CHAIN JAMMED & BIKE ROLLED - LANDED ON CONCRETE
 CHAIN CAME OFF BIKE AND SHE FELL OFF AND LANDED ON ROAD
 CHAIN SLIPPED OFF BICYCLE FELL OFF BIKE LANDED ON ROAD
 GEARS ON BIKE SEIZED, FELL TO ROADWAY.
 RIDING BIKE, BIKE CHAIN COME OF - LANDED ON CONCRETE CURB
 RIDING BICYCLE. CHAIN OF BIKE CAME LOOSE, VICTIM LOST CONTROL AND FELL.
 RIDING BICYCLE. CHAIN FELL OFF; LOST CONTROL. LANDED ON ROADWAY.
 RIDING BICYCLE TO FOOTBALL TRAINING. CHAIN CAME OFF BIKE. FELL
 CHAIN BROKE ON PUSH BIKE, CHILD HIT HIMSELF ON HANDLEBARS.
 RIDING HIS BICYCLE. THE CHAIN CAME OFF THE BIKE. HITTING A STEEL FENCE.
 RIDING HIS BICYCLE. CHAIN ON BICYCLE BROKE.
 RIDING A BICYCLE. CHAIN FELL OFF HIS BIKE AT HIGH SPEED. FELL ONTO THE ROAD.
 CHAIN CAME OFF BIKE AND FELL OFF FELL OFF BIKE AND HIT AGAINST CONCRETE
 CHAIN CAME OFF BIKE FELL ON ROADWAY
 CHAIN CAME OFF BIKE SLID ALONG ROUGH FOOTPATH
 CHAIN ON PUSHBIKE SNAPPED, FELL OFF ONTO ? ROAD
 RIDING BIKE, CHAIN CAME OFF, FELL OFF BIKE
 RIDING BICYCLE, CHAIN BROKE, VICTIM FELL ON BRICK PAVING
 RIDING BICYCLE, CHAIN CAME OFF BICYCLE, FELL ON ROAD & CAUGHT HAND IN BRAKE
 RIDING BICYCLE, CHAIN DISLODGED, VICTIM FELL ON ROAD
 RIDING PUSHBIKE/CHAIN FELL OFF BICYCLE/LOST CONTROL/LANDED ON GRAVEL
 CHAIN CAME OFF BIKE, FELL ONTO ROAD.
 RIDING A BICYCLE, CRANK BROKE AND FELL TO THE ROAD
 SLIPPED GEARS AND HIT KERB - FELL OFF AND LANDED ON VERGE
 CHAIN CAME OFF BIKE THROWN OVER HANDLEBARS ONTO ROAD
 RIDING A BIKE. CHAIN CAME OFF THE BIKE. CHILD WAS JERKED ON BIKE. DIDN'T FALL.
 PBA - CHAIN CAME OFF AND FOOT WENT ALONG ROAD
 RIDING BIKE/BICYCLE SLIPPED GEARS/FELL FORWARD AND RUBBED TOE ON GRAVEL
 PBA - CHAIN BROKE ON BIKE AND HIT DITCH
 CHAIN FELL OFF BIKE WHILST RIDING UP HILL, FOOT HIT ROAD
 RIDING A BIKE CHAIN CAME OFF, FLIPPED OVER. LANDED ON FOOTPATH
 RIDING WHEN CHAIN BROKE CAUSING PT TO FALL ONTO THE CONCRETE
 RIDING BIKE, BIKE CHAIN BROKE, FELL OFF.
 RIDING BIKE CHAIN CAME OFF BIKE & VICTIM THROWN ONTO FOOTPATH.
 RIDING BUSH BIKE. ALCOHOL & CHAIN FELL OFF AND LANDED ON CONCRETE.
 RIDING BIKE/CHAIN BROKE AND WENT OVER HANDLEBARS/LANDED ON ROAD
 RIDING BIKE CHAIN BROKE FELL OFF BIKE HIT MOUTH ON CEMENT
 RIDING BIKE CHAIN FELL OFF LOST CONTROL FELL ONTO CONCRETE

BIKE CHAIN CAME OFF LANDED ON ROADWAY
CHAIN ON BIKE BROKE, LOST CONTROL, RAN INTO WOODEN FENCE
RIDING BIKE WHEN CHAIN CAME OFF AND CHILD FELL ON ROAD
RIDING BIKE CHAIN CAME OFF BIKE LOST CONTROL FELL LANDED ON ROAD
RIDING BIKE CHAIN BROKE PT FELL HURTING KNEE
RIDING BIKE CHAIN CAME OFF BIKE HIT HANDLE BARS
RIDING A BIKE CHAIN FELL OFF BIKE, VICTIM FELL TO GROUND
RIDING A BICYCLE ON THE HOME FROM SCHOOL. CHAIN BROKE. FELL
RIDING BIKE WHEN CHAIN BECAME LOOSE AND CHILD FELL ONTO ROAD
PBA - RIDING A BIKE - GEARS SLIPPED ON BIKE AND PATIENT LANDED ON ROAD
RIDING BIKE CHAIN CAME OFF LOST CONTROL FELL OFF LANDED ON FOOTPATH
RIDING BIKE THE CHAIN CAME OFF AND PT LANDED ON THE ROAD.
RIDING BIKE CHAIN FELL OFF CHILD FELL OFF
RIDING A BICYCLE CHAIN SLIPPED VICTIM FELL ONTO CONCRETE
RIDING BIKE WHEN CHAIN BROKE AND CHILD FELL ONTO ROAD
CHAIN CAME OFF ON BIKE AND HIT GUTTER
RIDING BIKE WHEN CHAIN CAME OFF BIKE-HE WENT OVER THE HANDLEBARS
LOST CONTROL OF BIKE CHAIN CAME OFF LANDED ON ROAD
CHAIN BROKE ON PUSHBIKE CRASHED INTO GARAGE DOOR
RIDING BIKE WHEN CHAIN GOT CAUGHT IN WHEEL AND FOOT WAS DRAGGED
RIDING BIKE WHEN CHAIN CAME OFF AND HE FELL FROM BIKE
RIDING BIKE, GEAR SLIPPED, FELL ONTO CONCRETE
RIDING BIKE CHAIN FELL OFF AS STANDING TO PEDAL UP HILL FELL HIT ON X BAR
RIDING A BICYCLE. CHAIN BROKE. PATIENT FELL OFF THE BICYCLE.
RIDING BIKE TO SCHOOL. CHAIN CAME OFF BIKE. WENT OVER HANDLE BARS. HIT ROAD.
RIDING BIKE FULL SPEED CHAIN SLIPPED & HE HIT FENCE.
RIDING BIKE WHEN CHAIN CAME OFF AND HE FELL OFF ONTO ROAD
RIDING BIKE WHEN CHAIN CAME OFF AND HE FELL
RIDING BIKE: CHAIN CAME OFF & HE WENT OVER HANDLEBARS
RIDING A PUSHBIKE, CHAIN CAME OFF BIKE, LANDED ON THE ROAD





PEDALS

CYCLING, PEDAL LOCKED, FOOT CAUGHT IN WHEEL. OVER HANDLEBARS
R PEDAL SHAFT ON BIKE BROKE, FELL OFF ONTO CONCRETE
RIDING BIKE HOME. PEDAL FELL OFF BIKE. LOST CONTROL, FELL
RIDING BIKE WITH A FAULTY PEDAL CAUSING HIM TO FALL ON ROAD
PEDAL CAME APART WHILST RIDING BIKE, HIT AGAINST REMNANTS OF PEDAL
RIDING PUSHBIKE AND PEDALS LOCKED ON BIKE
RIDING PUSHBIKE, PEDALS JAMMED, LANDED ON CONCRETE





HANDLEBARS

RIDING BIKE, HANDLE BARS CAME OFF & HE FELL ONTO THE ROAD
LOST CONTROL OF BICYCLE WHEN HANDLE BARS WENT DOWN, LANDED ON CONCRETE.
RIDING TWO WHEELER BIKE DOWN HILL HANDLE BARS CAME LOOSE, LOST CONTROL
WHILE RIDING BIKE, HANDLE BARS SHIFTED, VICTIM FELL OFF, BIKE FELL ON VICTIM.
RIDING BIKE. HANDLE BARS COLLAPSED. FELL OF BIKE ONTO ROAD.
HANDLE GRIP ON BIKE FELL OFF & RODE INTO STATIONARY CAR HIT AGAINST CAR
HANDLEBARS BROKE, THROWN OFF BIKE.
RIDING BIKE HANDLEBARS LOOSE LOST CONTROL HIT POST
RIDING BIKE, HANDLE BARS DETACHED FROM BIKE, CHILD FELL.
RIDING BIKE WHEN HANDLEBARS SNAPPED AND CHILD FELL ONTO ROAD
RIDING BIKE FROM SCH WHEN HANDLEBARS FELL OFF CHILD FELL
RIDING FRIENDS BIKE WHEN HANDLEBARS CAME LOOSE
RIDING BIKE WHEN HIT A POTHOLE AND HANDLEBARS SNAPPED CHILD FELL OFF
RIDING BIKE HANDLEBARS BROKE FELL OFF HURT ARM





SADDLE

RIDING A BICYCLE. SEAT FELL OFF. LACERATED BOTTOM ON SCREWS.





OTHER

SPRING CAME OUT OF BIKE WHICH CHILD WAS RIDING FELL LANDED ON CONCRETE
FRONT SECTION OF BUSHBIKE COLLAPSED, HIT ROAD.
RIDING HOME. BIKE STAND FELL DOWN. LANDED ON ROAD.
BICYCLE MALFUNCTION HIT AGAINST CONCRETE WITH BIKE & MOTHER ON TOP
RIDING BICYCLE, BRANCH CAUGHT IN FRONT WHEEL, WENT OVER HANDLEBARS
RIDING BICYCLE, BACK WHEELS LOCKED UP, WENT HEAD OVER HEELS OVER BICYCLE
RIDING BIKE AND BACK WHEEL GOT CAUGHT, VICTIM FELL OFF BIKE.
RIDING BIKE, TYRE BLEW OUT, SKIDDED AND FELL
RIDING BIKE, BIKE LOCKED UP, LANDED ON ROAD.
RIDING BIKE WHEN GOT FLAT TYRE FRONT AND BACK AND FELL OFF
LOST CONTROL OF BIKE WHEN FORKS FRONT SNAPPED
RIDING HIS BICYCLE TYRE EXPLODED LANDED ON CONCRETE
RIDING A BICYCLE. SLIPPED ON THE WET ROAD & FELL ONTO THE ROADWAY.
RIDING BIKE ON WALKING TRACK. RIDING DOWNHILL. HIT BUMP. BIKE BROKE IN HALF.
REPAIRING BIKE. SPANNER BROKE. HAND INJURED ON CHAIN PART.
RIDING BIKE, FRONT BROKE AND HIT IN FACE

