

COS SPORTS MEDICINE

CONCUSSION ASSESSMENT INJURY REPORT FORM-ADAPTED FROM SCAT 5

NAME	
SPORT	
EXAMINER NAME:	
DATE OF EXAM:	
AGE	GENDER: M / F

OBSERVABLE SIGNS: ☐ WITNESSED ☐ OBSERVED ON VIDEO

LYING MOTIONLESS ON THE PLAYING SURFACE	Y	N
BALANCE/GAIT DIFFICULTIES/MOTOR INCOORDINATION: STUMBLING, SLOW OR LABORED MOVEMENTS	Y	N
DISORIENTATION OR CONFUSION OR AN INABILITY TO RESPOND APPROPRIATELY TO QUESTIONS	Y	N
BLANK OR VACANT LOOK	Y	N
FACIAL INJURY AFTER HEAD TRAUMA	Y	N

MADDOCKS SCORE

"I AM GOING TO ASK YOU A FEW QUESTIONS, PLEASE LISTEN CAREFULLY AND GIVE YOUR BEST EFFORT.

FIRST, WHAT HAPPENED TODAY?"

Mol: _____

WHAT VENUE / EVENT ARE WE AT TODAY?	Y	N
WHICH HALF IT IS NOW?	Y	N
WHO SCORED LAST IN THIS MATCH?	Y	N
WHAT TEAM DID YOU PLAY LAST WEEK/GAME?	Y	N
DID YOUR TEAM WIN THE LAST GAME?	Y	N

CERVICAL SPINE EXAMINATION

DOES THE ATHLETE REPORT THAT THEIR NECK IS PAIN FREE AT REST?	Y	N
IF THERE IS NO NECK PAIN AT REST, DOES THE ATHLETE HAVE A FULL RANGE OF ACTIVE PAIN FREE MOVEMENT?	Y	N
IS THE LIMB STRENGTH AND SENSATION NORMAL?	Y	N

COGNITIVE ASSESSMENT

WHAT MONTH IS IT?	0	1
WHAT IS THE DATE TODAY?	0	1
WHAT IS THE DAY OF THE WEEK?	0	1
WHAT YEAR IS IT?	0	1
WHAT TIME IS IT RIGHT NOW? (WITHIN 1 HR)	0	1
ORIENTATION SCORE	/5	

MONTHS IN REVERSE ORDER:

"NOW TELL ME THE MONTHS OF THE YEAR IN REVERSE ORDER. START WITH THE LAST MONTH AND GO BACKWARD. SO YOU'LL SAY DECEMBER, NOVEMBER ... GO AHEAD"

1 PT. FOR ENTIRE SEQUENCE CORRECT

DEC-NOV-OCT-SEPT-AUG-JUL-JUN-MAY-APR-MAR-FEB-JAN	0	1
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SYMPTOM EVALUATION

GIVE FORM TO ATHLETE AND ASK THEM TO READ THE FOLLOWING OUT LOUD:

FOR THE BASELINE ASSESSMENT, THE ATHLETE SHOULD RATE HIS/HER SYMPTOMS BASED ON HOW HE/SHE TYPICALLY FEELS AND FOR THE POST INJURY ASSESSMENT THE ATHLETE SHOULD RATE THEIR SYMPTOMS AT THIS POINT IN TIME.

	NONE	MILD	MODERATE	SEVERE
HEADACHE	0	1	2	3
PRESSURE IN HEAD	0	1	2	3
NECK PAIN	0	1	2	3
NAUSEA/VOMIT	0	1	2	3
DIZZINESS	0	1	2	3
BLURRED VISION	0	1	2	3
BALANCE PROBLEMS	0	1	2	3
SENSITIVE TO LIGHT	0	1	2	3
SENSITIVE TO NOISE	0	1	2	3
FEELING SLOWED DOWN	0	1	2	3
FEELING LIKE IN A FOG	0	1	2	3
DIFFICULTY CONCENTRATING	0	1	2	3
DIFFICULTY REMEMBERING	0	1	2	3
FATIGUE OR LOW ENERGY	0	1	2	3
CONFUSION	0	1	2	3
DROWSINESS	0	1	2	3
TROUBLE FALLING ASLEEP	0	1	2	3
MORE EMOTIONAL	0	1	2	3
IRRITABILITY	0	1	2	3
SADNESS	0	1	2	3
NERVOUS OR ANXIOUS	0	1	2	3
"DON'T FEEL RIGHT"	0	1	2	3

TOTAL NUMBER OF SYMPTOMS (MAX POSSIBLE 22)		
SYMPTOM SEVERITY SCORE (MAX 132)		
SYMPTOMS WORSE WITH PHYSICAL ACTIVITY?	Y	N
SYMPTOMS WORSE WITH MENTAL ACTIVITY?	Y	N
IF 100% IS FEELING PERFECTLY NORMAL, WHAT PERCENT OF NORMAL DO YOU FEEL?		
IF NOT 100%, WHY?		

UPPER LIMB COORDINATION:

FINGER-TO-NOSE TASK: ATHLETE SEATED, EYES OPEN. SHOULDER FLEXED TO 90, ELBOW & FINGERS EXTENDED. "WHEN I GIVE A START SIGNAL, I WOULD LIKE YOU TO PERFORM 5 SUCCESSIVE FINGER TO NOSE REPETITIONS USING YOUR INDEX FINGER TO TOUCH THE TIP OF THE NOSE AS QUICKLY AND AS ACCURATELY AS POSSIBLE."

SCORING: 5 CORRECT REPS IN < 4 SECONDS. /1

FAIL= DOES NOT TOUCH NOSE, DOES NOT FULLY EXTEND ELBOW OR REACH 5 REPS. FAIL=0

IMMEDIATE MEMORY

"I AM GOING TO TEST YOUR MEMORY. I WILL READ YOU A LIST OF WORDS AND WHEN I AM DONE, REPEAT BACK AS MANY WORDS AS YOU CAN REMEMBER IN ANY ORDER."

TRIALS 2 & 3:

"I AM GOING TO REPEAT THE SAME LIST AGAIN. REPEAT BACK AS MANY WORDS AS YOU CAN REMEMBER IN ANY ORDER, EVEN IF YOU SAID THE WORD BEFORE."

COMPLETE ALL 3 TRIALS REGARDLESS OF SCORE ON TRIAL 1 & 2.

READ THE WORDS AT A RATE OF ONE PER SECOND.

						T1	T2	T3
A	Dollar	Honey	Mirror	Saddle	Anchor			
B	Jacket	Arrow	Pepper	Cotton	Movie			
C	Baby	Monkey	Perfume	Sunset	Iron			
D	Finger	Penny	Blanket	Lemon	Insect			
E	Candle	Paper	Sugar	Sandwich	Wagon			
F	Elbow	Apple	Carpet	Saddle	Bubble			
Immediate Memory Score						of 15		
Time that last trial was completed								
* DELAYED RECALL (DONE LAST):						of 5		

CONCENTRATION: DIGITS BACKWARDS

PLEASE CIRCLE THE DIGIT LIST CHOSEN. ADMINISTER AT THE RATE OF ONE DIGIT PER SECOND READING DOWN THE COLUMN. IF CORRECT, GO TO THE NEXT STRING LENGTH. IF INCORRECT, READ TRIAL 2. ONE POINT POSSIBLE FOR EACH STRING LENGTH. STOP AFTER INCORRECT ON BOTH TRIALS.

"I AM GOING TO READ YOU A STRING OF NUMBERS AND WHEN I AM DONE YOU REPEAT THEM BACK TO ME BACKWARDS, IN REVERSE ORDER OF HOW I READ THEM TO YOU. FOR EXAMPLE, IF I SAY 7-1-9, YOU WOULD SAY 9-1-7."

List A	List B	List C			
4-9-3	5-2-6	1-4-2	Y	N	0
6-2-9	4-1-5	6-5-8	Y	N	1
3-8-1-4	1-7-9-5	6-8-3-1	Y	N	0
3-2-7-9	4-9-6-8	3-4-8-1	Y	N	1
6-2-9-7-1	3-8-5-2-7	4-9-1-5-3	Y	N	0
1-5-2-8-6	6-1-8-4-3	6-8-2-5-1	Y	N	1
7-1-8-4-6-2	8-3-1-9-6-4	3-7-6-5-1-9	Y	N	0
5-3-9-1-4-8	7-2-4-8-5-6	9-2-6-5-1-4	Y	N	1

NEUROLOGICAL SCREEN

CAN THE PATIENT READ ALOUD (SYMPTOM CHECK-LIST) AND FOLLOW INSTRUCTIONS WITHOUT DIFFICULTY?	Y	N
DOES THE PATIENT HAVE A FULL RANGE OF PAIN-FREE PASSIVE CERVICAL SPINE MOVEMENT?	Y	N
WITHOUT MOVING THEIR HEAD OR NECK, CAN THE PATIENT LOOK SIDE-TO-SIDE AND UP-AND-DOWN WITHOUT DOUBLE VISION? PERFORM 10 TIMES EACH WAY	Y	N
CAN THE PATIENT PERFORM THE FINGER-TO-NOSE COORDINATION TEST NORMALLY? SEE INSTRUCTIONS	Y	N
CAN THE PATIENT PERFORM TANDEM GAIT NORMALLY?	Y	N

SAC Delayed Recall:(Done after BESS test) "Do you remember that list of words I read a few times earlier? Tell me as many words from the list as you can remember in any order?"
See front for scoring in memory area at bottom.

MODIFIED BESS (BALANCE ERROR SCORING SYSTEM)

EACH OF THE TWENTY-SECOND TRIALS IS SCORED BY COUNTING THE ERRORS, OR DEVIATIONS FROM THE PROPER STANCE, ACCUMULATED BY THE SUBJECT. THE EXAMINER WILL BEGIN COUNTING ERRORS ONLY AFTER THE INDIVIDUAL HAS ASSUMED THE PROPER TESTING POSITION. PLEASE HAVE THEM REMOVE THEIR SHOES AND ROLL UP THEIR PANTS TO EXPOSE ANKLE.

DOUBLE LEG STANCE: STANDING ON A FIRM SURFACE WITH FEET SIDE BY SIDE (TOUCHING), HANDS ON THE HIPS AND EYES CLOSED

SINGLE LEG STANCE: STANDING ON A FIRM SURFACE ON THE NON-DOMINANT FOOT, THE HIP IS FLEXED TO APPROXIMATELY 30° AND KNEE FLEXED TO APPROXIMATELY 45°. HANDS ARE ON THE HIPS AND EYES CLOSED.

TANDEM STANCE: STANDING HEEL TO TOE ON A FIRM SURFACE WITH THE NON-DOMINANT FOOT IN THE BACK. HEEL OF THE DOMINANT FOOT SHOULD BE TOUCHING THE TOE OF THE NON-DOMINANT FOOT. HANDS ARE ON THE HIPS AND THEIR EYES ARE CLOSED.

BALANCE ERROR SCORING SYSTEMS (BESS) TYPES OF ERRORS

1. HANDS LIFTED OFF ILIAC CREST
2. OPENING EYES
3. REMAINING OUT OF TEST POSITION >5 SEC
4. MOVING HIP INTO > 30 DEGREES ABDUCTION
5. LIFTING FOREFOOT OR HEEL
6. STEP, STUMBLE, OR FALL

-THE MAXIMUM TOTAL NUMBER OF ERRORS FOR ANY SINGLE CONDITION IS 10.

-IF A SUBJECT COMMITS MULTIPLE ERRORS SIMULTANEOUSLY, ONLY ONE ERROR IS RECORDED

BESS SCORECARD

FOOTWEAR: (SHOES, BAREFOOT, BRACES, TAPE):		
# ERRORS	FIRM SURFACE	FOAM SURFACE (OPTIONAL)
DOUBLE-LEG STANCE	/ 10	/ 10
SINGE LEG STANCE (NON-DOMINANT)	/ 10	/ 10
TANDEM STANCE (NON-DOMINANT FOOT IN BACK)	/ 10	/ 10
TOTAL OF SCORES	/ 30	/ 30
WHAT IS NON-DOMINANT FOOT? R L		/ 60
TANDEM GAIT FEET TOGETHER THEN START WALKING HEEL-TOE-HEEL-TOE ON TAPE FOR 3M (10FT), 180 TURN AND GO BACK AS QUICKLY AS POSSIBLE. FAIL IS IF THEY STEP OFF THE LINE, HAVE A SEPARATION BETWEEN THEIR HEEL AND TOE, OR IF THEY TOUCH OR GRAB EXAMINER OR OBJECT FOR BALANCE. PASS / FAIL		
EXAMINERS:		

BALANCE TRACKING SCORE

TRIAL 1	
TRIAL 2	
TRIAL 3	
AVG	
%	

SCAT5—ATHLETE INFORMATION

PATIENT'S NAME _____
DATE / TIME OF INJURY _____
MEDICAL PERSONNEL _____

WHAT IS A CONCUSSION?

A CONCUSSION IS A DISTURBANCE IN BRAIN FUNCTION CAUSED BY A DIRECT OR INDIRECT FORCE TO THE HEAD. IT RESULTS IN A VARIETY OF NONSPECIFIC SYMPTOMS (LIKE THOSE LISTED BELOW) AND OFTEN DOES NOT INVOLVE LOSS OF CONSCIOUSNESS. CONCUSSION SHOULD BE SUSPECTED IN THE PRESENCE OF **ANY ONE OR MORE** OF THE FOLLOWING:

- SYMPTOMS (SUCH AS HEADACHE), OR
- PHYSICAL SIGNS (SUCH AS UNSTEADINESS), OR
- IMPAIRED BRAIN FUNCTION (E.G. CONFUSION) OR
- ABNORMAL BEHAVIOR.

ANY ATHLETE WITH A SUSPECTED CONCUSSION SHOULD BE REMOVED FROM PLAY, MEDICALLY ASSESSED, MONITORED FOR DETERIORATION (I.E., SHOULD NOT BE LEFT ALONE) AND SHOULD NOT DRIVE A MOTOR VEHICLE.

CONCUSSION INJURY ADVICE

THIS PATIENT HAS RECEIVED AN INJURY TO THE HEAD. A CAREFUL MEDICAL EXAMINATION HAS BEEN CARRIED OUT AND NO SIGN OF ANY SERIOUS COMPLICATIONS HAS BEEN FOUND. RECOVERY TIME IS VARIABLE ACROSS INDIVIDUALS AND THE PATIENT WILL NEED MONITORING FOR A FURTHER PERIOD BY A RESPONSIBLE ADULT. YOUR TREATING PHYSICIAN WILL PROVIDE GUIDANCE AS TO THIS TIMEFRAME.

SIGNS TO WATCH

PROBLEMS COULD ARISE OVER THE FIRST 24-48 HOURS. YOU SHOULD NOT BE LEFT ALONE AND MUST GO TO A HOSPITAL AT ONCE IF YOU:

- WORSENING HEADACHE
- CAN'T RECOGNIZE PEOPLE OR PLACES
- DROWSINESS OR INABILITY TO BE AWAKENED (WOKEN UP)
- HAVE WEAK OR NUMB ARMS OR LEGS
- REPEATED VOMITING
- HAVE SEIZURES (ARMS AND LEGS JERK UNCONTROLLABLY)
- UNUSUAL BEHAVIOR OR SEEM CONFUSED OR IRRITABLE
- ARE UNSTEADY ON YOUR FEET; HAVE SLURRED SPEECH

REMEMBER, IT IS BETTER TO BE SAFE.

CONSULT YOUR PHYSICIAN AFTER A SUSPECTED CONCUSSION

RETURN TO PLAY

AFTER A CONCUSSION, THE ATHLETE SHOULD HAVE PHYSICAL REST AND RELATIVE COGNITIVE REST FOR A FEW DAYS TO ALLOW THEIR SYMPTOMS TO IMPROVE. IN MOST CASES, AFTER NO MORE THAN A FEW DAYS OF REST, THE ATHLETE SHOULD GRADUALLY INCREASE THEIR DAILY ACTIVITY LEVEL AS LONG AS THEIR SYMPTOMS DO NOT WORSEN. ONCE THE ATHLETE IS ABLE TO COMPLETE THEIR USUAL DAILY ACTIVITIES WITHOUT CONCUSSION-RELATED

SYMPTOMS, THE SECOND STEP OF THE RETURN TO PLAY/SPORTS PROGRESSION CAN BE STARTED. THE ATHLETE SHOULD NOT RETURN TO PLAY/SPORT UNTIL THEIR CONCUSSION-RELATED SYMPTOMS HAVE RESOLVED AND THE ATHLETE HAS SUCCESSFULLY RETURNED TO FULL SCHOOL/LEARNING ACTIVITIES.

WHEN RETURNING ATHLETES TO PLAY, THEY SHOULD BE **MEDICALLY CLEARED** AND THEN FOLLOW A STEPWISE MEDICALLY MANAGED EXERCISE PROGRESSION, WITH INCREASING AMOUNTS OF EXERCISE. FOR EXAMPLE:

GRADUATED RETURN TO SPORT STRATEGY

EXERCISE STEP	FUNCTIONAL EXERCISE AT EACH STEP	GOAL OF EACH STEP
1. SYMPTOM-LIMITED ACTIVITY	DAILY ACTIVITIES THAT DO NOT PROVOKE SYMPTOMS	GRADUAL REINTRODUCTION OF WORK/SCHOOL ACTIVITIES
2. LIGHT AEROBIC EXERCISE	WALKING, OR STATIONARY BIKE SLOW TO MED, NO RESISTANCE TRAINING	INCREASE HEART RATE
3. SPORT-SPECIFIC EXERCISE	RUNNING DRILLS, NO CONTACT, NO HEAD IMPACT	ADD MOVEMENT
4. NON-CONTACT TRAINING DRILLS	PROGRESSION TO MORE COMPLEX TRAINING DRILLS, EX: PASSING DRILLS, MAY START RESISTANCE TRAINING	EXERCISE, COORDINATION, AND INCREASED THINKING
5. FULL CONTACT PRACTICE	FOLLOWING MEDICAL CLEARANCE, PARTICIPATE IN NORMAL TRAINING ACTIVITIES	RESTORE CONFIDENCE AND ASSESS FUNCTIONAL SKILLS BY COACHING STAFF
6. RETURN TO PLAY	NORMAL GAME PLAY	

THERE SHOULD BE AT LEAST 24 HOURS (OR LONGER) FOR EACH STAGE AND IF SYMPTOMS WORSEN WHILE EXERCISING, THE ATHLETE SHOULD GO BACK TO THE PREVIOUS STEP. RESISTANCE TRAINING SHOULD ONLY BE ADDED IN THE LATER STAGES 3 & 4)

OTHER IMPORTANT POINTS:

- INITIAL REST: LIMIT PHYSICAL ACTIVITY TO ROUTINE DAILY ACTIVITIES (AVOID EXERCISE, TRAINING, SPORTS) AND LIMIT ACTIVITIES SUCH AS SCHOOL, WORK AND SCREEN TIME TO A LEVEL THAT DOES NOT WORSEN SYMPTOMS.
- AVOID ALCOHOL
- NO SLEEPING TABLETS
- AVOID PRESCRIPTION OR NON-PRESCRIPTION DRUGS WITHOUT MEDICAL SUPERVISION. SPECIFICALLY:
 - NO SLEEPING TABLETS
 - DO NOT USE ASPIRIN, ANTI-INFLAMMATORY MEDS OR SEDATING PAIN-KILLERS (ADVIL, BAYER, VICODIN)
- DO NOT DRIVE UNTIL MEDICALLY CLEARED
- RETURN TO PLAY/SPORT REQUIRES CLEARANCE BY A HEALTHCARE PROFESSIONAL

GRADUATED RETURN TO SCHOOL STRATEGY

Concussion may affect the ability to learn at school. The athlete may need to miss a few days of school after a concussion. When going back to school, some athletes may need to go back gradually and may need to have some changes made to their schedule so that concussion symptoms do not get worse. If a particular activity makes symptoms worse, then the athlete should stop that activity and rest until symptoms get better. To make sure that the athlete can get back to school without problems, it is important that the healthcare provider, parents, caregivers and teachers talk to each other so that everyone knows what the plan is for the athlete to go back to school.

Note: If mental activity does not cause any symptoms, the athlete may be able to skip step 2 and return to school part-time before doing school activities at home first.

MENTAL ACTIVITY	ACTIVITY AT EACH STEP	GOAL OF EACH STEP
1. DAILY ACTIVITIES THAT DO NOT GIVE THE ATHLETE SYMPTOMS	TYPICAL ACTIVITIES THAT THE ATHLETE DOES DURING THE DAY AS LONG AS THEY DO NOT INCREASE SYMPTOMS (EX: READING, TEXTING, SCREEN TIME.) START WITH 5-15 MIN AT A TIME AND GRADUALLY BUILD UP	GRADUAL RETURN TO TYPICAL ACTIVITIES.
2. SCHOOL ACTIVITIES	HOMEWORK, READING OR OTHER COGNITIVE ACTIVITIES <i>OUTSIDE</i> OF THE CLASSROOM	INCREASE TOLERANCE TO COGNITIVE WORK
3. RETURN TO SCHOOL PART-TIME	GRADUAL INTRODUCTION OF SCHOOLWORK. MAY NEED TO START WITH A PARTIAL SCHOOL DAY OR WITH INCREASED BREAKS DURING THE DAY.	INCREASE ACADEMIC ACTIVITIES
4. RETURN TO SCHOOL FULL-TIME	GRADUALLY PROGRESS SCHOOL ACTIVITIES UNTIL A FULL DAY CAN BE TOLERATED	RETURN TO FULL ACADEMIC ACTIVITIES AND CATCH UP ON MISSED WORK

If the athlete continues to have symptoms with mental activity, some other accommodations that can help with return to school may include:

- STARTING SCHOOL LATER, ONLY GOING FOR HALF DAYS, OR GOING ONLY TO CERTAIN CLASSES
- MORE TIME TO FINISH ASSIGNMENTS/TESTS
- QUIET ROOM TO FINISH ASSIGNMENTS/TESTS
- NOT GOING TO NOISY AREAS LIKE THE CAFETERIA, ASSEMBLY HALLS, SPORTING EVENTS, MUSIC CLASS, SHOP CLASS, ETC.
- USE OF A STUDENT HELPER/TUTOR
- TAKING LOTS OF BREAKS DURING CLASS, HOMEWORK, TESTS
- NO MORE THAN ONE EXAM/DAY
- SHORTER ASSIGNMENTS
- REASSURANCE FROM TEACHERS THAT THE STUDENT WILL BE SUPPORTED WHILE GETTING BETTER
- REPETITION/MEMORY CUES

The athlete should not go back to sports until they are back to school/learning, without symptoms getting significantly worse and no longer needing any changes to their schedule.