



Bronxville School District Concussion Management Policy

The Bronxville School District Board of Education recognizes that concussions and head injuries are commonly reported injuries in children and adolescents who participate in sports and recreational activity and can have serious consequences if not managed carefully. Parents and students must be aware that no helmet can guarantee the prevention of serious injury to the head or neck. Therefore, the District adopts the following policy and guidelines to support the proper evaluation and management of head injuries.

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Definition of a Concussion

A concussion is defined as a “traumatic brain injury that occurs from forces applied directly or indirectly to the skull that results in the rapid acceleration and deceleration of the brain.”¹ It may or may not involve loss of consciousness. Recovery from a concussion will vary with each individual. Avoiding re-injury and over exertion until fully recovered are paramount components of concussion management.

Signs and Symptoms

Students who have experienced a concussion may present with all or some of the following:

- Headache
- Dizziness
- Drowsiness/Sleepiness
- Ringing in ears
- Memory problems
- Excessive silliness/giddiness
- Problems focusing
- Feeling depressed or emotional
- Slurred speech
- Problems with balance
- Feeling dazed or confused
- Nausea/Vomiting
- Blurred Vision/Double Vision
- Loss of Orientation
- Sensitivity to light/sound
- Feeling aggressive
- Loss of appetite
- Nervousness
- Sleep disturbances
- Feeling sluggish
- Seeing stars or flashing lights
- Having fatigue or low energy

Complications

Students who have sustained a concussion and that have developed any of the following need to be transported by EMS to the nearest emergency room:

- Deteriorating or loss of consciousness
- Irregular or decreased breathing
- Irregular or decreased heart rate
- Unequal, dilated, or unreactive pupils
- Changes in mental status or extreme drowsiness, attention deficits, confusion, or extreme irritability
- Seizures
- Repeated vomiting
- Slurred speech
- Weakness/numbness in arms/legs with or without the presence of facial drooping

Concussion Management Team

As recommended by the New York State Education Department and Department of Health, the Bronxville School District has established a Concussion Management Team (CMT). This team will work collectively with parent(s) and guardian(s) to monitor an individual student's progress, and will advocate for academic and physical accommodations as appropriate to return to full activities.²

This Concussion Management Team (CMT) will be made up of the following individuals:

- a. School Physician
- b. School Nurse
- c. District Athletic Trainer
- d. Athletic Director
- e. Guidance Counselor

Recommendations for each role are outlined in the *Guidelines for Concussion Management in the School Setting*, as published by the New York State Education Department (NYSED).

It is the responsibility of the CMT to ensure that the policy is implemented and reviewed biannually.

In addition to the concussion management team, concussion management leaders (CML) will be assigned as the "point person" to manage concussed students on an individual basis.

- The athletic trainer will be the "CML" for all student athletes
- The school nurse will be the "CML" for all non-athletes

Prevention and Education

The Bronxville School District recognizes that protecting students from head injuries is one of the most important ways to prevent a concussion. Although the risk of a concussion is present when participating any sport: education, proper athletic equipment, and supervision, will help minimize the risk of such injuries.

- All Equipment issued for athletes by the Bronxville athletic department is certified to meet the national safety standards approved by the National Organization for Care and Safety of Athletic Equipment (NOCASE).

Staff Education

The district athletic trainer will be responsible for the coordination of mandatory biennial concussion training for all coaches, physical education teachers, nurses, and athletic trainers that work with and provide instruction to students engaged in school sponsored athletic activities.

- NYSED has approved the course *Heads Up, Concussion in Youth Sports* for physical education teachers and coaches. It is a free web-based course available at http://www.cdc.gov/concussion/HeadsUp/online_training.html.
- NYSED has approved the course *Heads Up to Clinicians* for school nurses and athletic trainers. It is a free web-based course available at <http://preventingconcussions.org/>.
 - This is not a NYS specific training video; therefore the scope of practice of certified athletic trainers and school nurses in NYS might differ from what is described in the training. Registered NYS nurses and ATC must follow NYS law in regards to licensing and scope of practice.

Parent and Athlete Education

- Student athletes will be provided with a copy of the *Heads Up Concussion, Athlete Fact/Information Sheet* at each pre-season meeting for sports.
- Parents and Guardians can find a comprehensive concussion information packet on the Bronxville athletics website. A hard copy will also be provided to each student athlete to take-home in their pre-season meeting.
- Both student-athletes and parents will be required to sign, date and return an acknowledgement stating that the policy has been received and reviewed annually.

Consent

The Bronxville School District will be using a variety of assessment tools to assist in determining a student's ability to return to play. These tools will be used in both baseline testing and in post-concussion assessments. The following briefly describes each assessment device that maybe used in conjunction with clinical evaluation:

I. Bronxville Athletics Concussion Evaluation Form

A one-page form developed by the Concussion Management Team. It is a way to document the incident and the signs/symptoms a concussed student may experience immediately after the injury and 15 minutes post-injury. The coaching staff will use this assessment tool when the athletic trainer is not present and a student is being evaluated for a possible concussion.

II. Sports Concussion Assessment Tool (SCAT)

This is a "standardized tool for evaluating injured athletes for concussion" and can be used in athletes aged 13 and older. The district's RN or athletic trainer, when evaluating a student with a suspected concussion, will use this form. Students who participate in school athletics are subject to have a baseline SCAT prior to the start of the season.

III. Immediate Post Concussion Assessment and Cognitive Testing (ImPACT)

ImPACT is a computerized exam that tests different brain functions including memory, reaction times, processing speed, and concentration. The testing information is confidential and kept securely in a database by ImPACT which can only be accessed with a secured password by members of the Concussion Management Team. More information can be found at <https://www.impacttest.com>.

Questions regarding any of the assessment tools mentioned above can be directed to the Athletic Trainer who can be contacted at 914-395-0500 x1016.

Baseline Testing

Baseline testing will be conducted **biannually** prior to the beginning of the season for Bronxville students aged 13 and older who participate in the listed sports, as recommended by the 2014 National Athletic Trainer's Concussion Position Statement:

- Football
- Soccer
- Field Hockey
- Ice Hockey
- Basketball
- Lacrosse
- Diving
- Baseball
- Pole Vaulting

Athletes who have a significant concussion history or other relevant co-morbidity, such as attention-deficit hyperactivity disorder (ADHD) should be considered for testing on an individual basis. This information will be used to assess any changes in the event a student experiences a concussion. Parents will be notified about the testing and can notify the trainer if they wish to exclude their student athlete from the testing. Results of the testing will be made available to parents upon request. A new baseline examination will be completed annually.

Concussion Management Protocol

The following regulation contains the required protocol for any student with a suspected concussion. This protocol is to be adhered to regardless of whether or not the student sustained the concussion during a school related activity or outside of school.

In the event that a student sustains a concussion outside of a Bronxville school district sponsored activity or event, the student's parent(s)/guardian(s) are **REQUIRED** to notify the school's nurses office and make them aware of the concussion.

It should be emphasized to all personnel, students, parents and guardians that **NO** athlete will be allowed to return to play the day of injury and that **ALL** students should obtain appropriate medical clearance prior to returning to play or school.

- I. Any student that suffers loss of consciousness, no matter how long its duration, is treated as a medical emergency and should be transported to the most appropriate emergency room, as determined by EMS. The same will be true for any student who is suspected to have a cervical spine injury. Injury to the cervical spine may or may not present with paralysis in the arms/legs, numbness or tingling anywhere in the body. In either case, EMS should be notified by calling 911. In such cases, the student should not be moved and head should be stabilized until EMS arrives.
 - i. Any student with a concussion that results in loss of consciousness is required to sit out from school activities (recess, physical education, sports) for a minimum of seven (7) days before starting the return to play protocol. The return to play protocol may not begin until these seven (7) days are over and the student is symptom free.
- II. In accordance with New York State law, any student without loss of consciousness and suspected of sustaining a concussion must be immediately removed from activity.
- III. Following removal from activity, the appropriate evaluation tool should be used to assess students:
 - i. **Physical Education Staff:** fill out the Bronxville Athletics Concussion Evaluation Form and an accident report, contact and notify the nurse's office.
 - ii. **Coaches:** fill out the Bronxville Athletics Concussion Evaluation Form and an accident report, contact and notify the athletic trainer.

- iii. **RN and ATC:** use the SCAT assessment (students aged 13 and older) and fill out an accident report (when appropriate); the athletic trainer should be notified if the student is an athlete. Students under the age of 13 will be evaluated only through clinical assessment.
- IV. As soon as feasible, the **appropriate concussion management leader** should:
- i. Contact student's parent(s)/guardian(s) and make them aware of the situation. Parents should be given the *Concussion Packet for Parents*, which is posted on the Bronxville School District's website and provided to students prior to their participation in school athletics.
 - ii. **Notify the student's guidance counselor who will assess the academic needs of the student and disseminate information to the appropriate faculty members, on a need to know basis. An on-going assessment of a student's academic needs will take place as symptoms change/resolve.**
- V. Students who have experienced two (2) concussions in one (1) season or students who have experienced three (3) concussions in a lifetime are recommended to refrain from contact sport activity. Students who experience four (4) or more concussions in a lifetime can pre-dispose the student to longer recovery time and/or lifetime impairments.
- VI. Once the student has been symptom free for 24 hours, they must be re-evaluated by their physician for written clearance to begin the return to **play/physical education** protocol.
- VII. A private licensed physician, preferably with a neurological background, must evaluate all students with suspected concussions for diagnosis and appropriate medical care.
- i. Student Athletes are encouraged to see an ImPACT CIC physician or a sports medicine physician with experience in evaluating and treating sports related concussions. A list of local physicians can be found on page 14.
- VIII. After the student has obtained clearance from a private licensed physician, the Bronxville school district physician must next clear them before starting the return-to-play protocol. This appointment will be arranged by the ATC with the school's RN office. **The school physician will make the final decision when a student will be allowed to return to physical activities.**

- IX When the Bronxville school district medical physician determines it is safe for the student to return to play/physical education, the appropriate concussion team leader will be notified in writing, that the student can begin the return to play/physical education protocol.

All students under the age of 13, must have written authorization from their health care provider and be symptom free without medication for 7 days before returning to physical education, recess or any other physical activity at school. These students will not be required to complete the “return-to-play” progression, however will be required to obtain final clearance by the school physician prior to returning to physical education, recess, or any other physical activity.

- i A school nurse will notify the physical education teacher that the student has sustained a concussion and will also notify them when the student is cleared.

Concussion Management Check Sheet

Coaches

Concussion that occur during a school related activity/event (i.e. class/practice/scrimmage/game)

- Remove from activity (**THEY ARE NOT ALLOWED TO "GO BACK IN"**)
- Complete Bronxville Athletics Concussion Evaluation Form
- Notify Parents and provide them with a copy of the *Parent's Concussion Packet*. Also provide them with the Athletic Trainer's contact information.
- Notify Certified Athletic Trainer
- Complete Accident Report and give to athletic trainer within 24-48 hours

COACHES STOP HERE

Nurses/Athletic Trainer

Concussions that occur during a school related activity/event (i.e. physical education, recess, practice/game)

- Remove from activity
- Complete SCAT (**ONLY** if student is aged 13 or over)
- Notify Parents and provide them with a copy of the *Parent's Concussion Packet*.
- Notify Athletic Trainer (**ONLY** if student is aged 13 or over & is an athlete)
- Start a *Concussion Flow Sheet*
- Concussion medical team leader is to contact the student's Guidance Counselor
- Complete Accident Report, if one has not already been completed

Concussions that occur outside of school

- Provide parents with a copy of the *Parent's Concussion Packet*
- Complete SCAT (**ONLY** if student is aged 13 or over)
- Notify Certified Athletic Trainer (**ONLY** if student is aged 13 or over & is an athlete)
- Start a *Concussion Flow Sheet*
- Concussion medical team leader is to notify the student's Guidance Counselor

FOR ALL CONCUSSIONS (SCHOOL RELATED OR NOT)

- All students 13 and older, once asymptomatic 24 hours need private MD clearance and then clearance from school physician **PRIOR** to beginning the "return-to-play" protocol with the certified athletic trainer.
- Students younger than 13, **ONLY** require:
 - Private MD clearance
 - School MD clearance

Concussion Flow Sheet

Date: _____ Student Name: _____

Date of Birth: _____ Gender: M F

Grade: 7 8 9 10 11 12

Date of Incident: _____ Loss of Consciousness: [] Yes [] No

Where did Incident Occur? (Circle One)

Practice Game Recess Physical Education Outside School

(if applicable): Sport: _____ Season: _____

Concussion Management Team Leader: _____

(13 or older and an athlete: athletic trainer; all non-athletes: nurse's office)

Parent's Contacted (given parent concussion packet) Date: _____ Initials
 Guidance Counselor Contacted Date: _____

Students (13 and older):

Symptom-Free for 24 hours (Phase 1) Date: _____ Initials
 Private MD clearance (attach to this sheet) Date: _____
 School MD clearance to start protocol Date: _____
 Phase 2 Complete Date: _____
 Phase 3 Complete Date: _____
 Phase 4 Complete Date: _____
 Phase 5 Complete Date: _____
 Full Clearance Date: _____
attach: school MD clearance form

Students (under 13):

Symptom free without medication, 7 days Date: _____ Initials
 Private MD clearance (attach to this sheet) Date: _____
 School MD clearance (attach to this sheet) Date: _____
 Full Clearance Date: _____

Evaluation & Return to Play Protocol

The concussion diagnosis is made through clinical evaluation and supported by assessment tools. Assessment tools include but are not limited to the Bronxville Concussion Evaluation Athletics Form, the Sport Concussion Assessment Tool (SCAT), and ImPACT testing. The school physician, certified athletic trainer, and Bronxville school district reserve the right to withhold a student from activity regardless of medical clearance by a private physician.

During the acute (24-48 hours) post-concussion recovery stage, daily testing of neurocognitive function and motor control is typically not needed until the patient is asymptomatic. A concussed athlete or non-athlete, should not return to physical activity on the day of injury.¹ When a student (aged 13 and older) has been cleared by the school physician to begin the “return-to-play/physical education protocol,” the certified athletic trainer or physical education teacher will progress the student through the protocol, regardless of whether or not the student is an athlete and regardless of whether or not the student is “in-season.”

The following physical exertion progression will be used for all concussed students aged 13 and older and will begin shortly after they have demonstrated a normal clinical examination and the resolution of concussion related symptoms. Post-concussion assessment tools will be compared to baseline scores and will be used only as aides to clinical evaluation. Assessment tools (i.e. SCAT, ImPACT) will not be used as sole determinant factors in defining a student’s readiness to begin or progress through the protocol.

As a guideline, an asymptomatic 24-hour period is suggested between every phase of the protocol. Should the athlete begin to experience any concussion type signs/symptoms, the progression is to be stopped, and the student is to be immediately referred to their concussion management leader (CML) for medical evaluation. The progression will resume with the last completed phase when deemed appropriate by their CML. The return-to-play/physical education progression is composed of six phases as follows:

I. Phase 1: Rest and Recovery

Complete physical and cognitive rest is required of the student until he/she is symptom free. Once the student has been symptom free for 24 hours, student and parents should obtain private MD clearance.

II. Phase 2: Light Exercise

Consists of low-impact, non-strenuous, light aerobic activity such as walking or riding a stationary bike, or light elliptical exercise for 15 minutes. No resistance training. If tolerated without return of symptoms over a 24-hour period, the physical education teacher/athletic trainer may progress the student to “Phase 3.”

Post-Injury SCAT/ ImPACT Test 1

If the student is an athlete, SCAT/ImPACT testing will be conducted during this phase and compared to baseline scores prior to the start the physical component of this phase. If baseline or better scores are not obtained, the athlete may progress through the program at the discretion of the athletic trainer, based on clinical evaluation.

III. Phase 3: Sport-Specific Activity

Composed of sport-specific activity without the threat of contact. Moderate impact, moderate aerobic activity such as jogging for 20 minutes and/or skills necessary for the activity to which the student will return (i.e. passing a football). Light resistance training. If tolerated without return of symptoms over a 24-hour period, the physical education teacher/athletic trainer may progress the student to "Phase 4."

IV. Phase 4: Non-Contact Training involving others, Resistance Training

Students may participate in drills throughout practice that require no contact (i.e. lay-up drills in basketball). Higher resistance weight training with a spotter is acceptable. If baseline or better scores are obtained and the physical component is tolerated without return of symptoms over a 24-hour period, the physical education teacher/athletic trainer may progress the student to "Phase 5."

Post-Injury SCAT/ ImPACT Test 2

If the student is an athlete, SCAT/ImPACT testing will be conducted again and compared to post-injury test 1 and baseline scores prior to the start the physical component of this phase. If baseline or better scores are not obtained at this time, students will not progress to the next phase unless it is deemed safe by both the athletic trainer and school physician.

Any deficits in assessment tool (SCAT/ImPACT) scores will be discussed with the school physician prior to full clearance. If deficits in scores exist **AND clinical evaluation still determines an athlete to be concussed the school physician and certified athletic trainer will determine the next step on a case-by-case basis.

V. Phase 5: Unrestricted Training, Full Contact Training

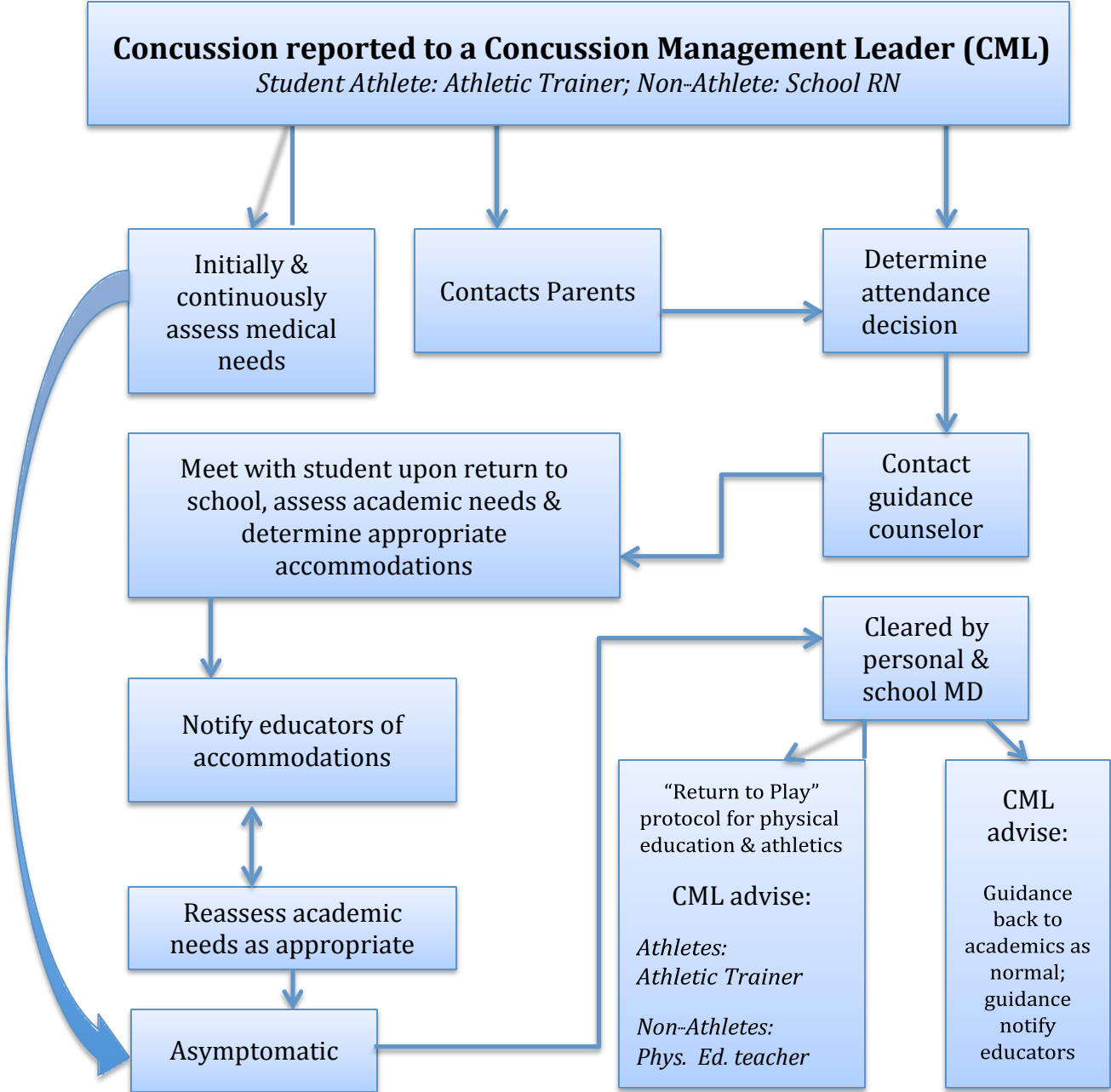
Students may participate in full contact training drills and intense aerobic activity. If tolerated without return of symptoms over a 24-hour period, the physical education teacher/athletic trainer will notify and arrange for the student to see the school physician for full-unrestricted clearance.

VI. Phase 6: Return to Play

Return to full activity without restrictions.

Evaluation & Return to the Classroom

Because concussions influence the brain’s ability to function at its normal capacity, it is expected that some students may experience difficulty in the classroom and with schoolwork. To best accommodate our students, Bronxville has adopted a concussion management process that avoids permanent damage to his/her academic record and one that helps students recover while allowing them to still participate in class.



The following progression is a framework recommendation for a student's return to the classroom. It is important to remember that concussions are an individualized injury, students may not need to be progressed through all phases and may not have to start with phase 1.

I. Phase 1: No School

Concussive symptoms may be moderate to severe. Students should not be in school, be required to do homework, and should avoid symptom triggers.

II. Phase 2: Half Day with accommodations

Balance rest with a gradual re-introduction back to school. Attendance focus should be on core subjects, workload should be prioritized with reduced or no homework. Symptom specific accommodations should be made (refer to chart above).

III. Phase 3: Full Day with accommodations

Gradually increase mental demands and re-introduction back to school. Continue to avoid symptom triggers and accommodate accordingly. Prioritize workload both in the classroom and at home. Gradually increase homework. Re-evaluate and adjust accommodations as symptoms wane and/or resolve.

IV. Phase 4: Full Day without accommodations

Focus on missed work and resumption of normal academic activity. Construct a plan to finish missing work while keeping stress low.

V. Phase 5: Full Day with return to extracurricular activity

Students at this phase should be asymptomatic without medication.

Classroom Concussion Evaluation

This evaluation may be use by a student’s guidance counselor upon return to school to determine appropriate accommodations.

Students Name: _____

Date: _____

Instructions to the Student:

Read the symptoms in the left-hand column. For each symptom, circle one answer in the center column. Be honest and do not skip any questions. Then, answer the question at the bottom of this page. Give the sheet to your educator once complete.

Instructions to the Educator:

Use the student’s responses to the following questions to devise in-class, symptom-based accommodations. Refer back to Concussions in the Classroom for more specific explanations of the accommodations.

Symptom	Rating				Recommended Accommodation
	none	mild	moderate	severe	
Headache	none	mild	moderate	severe	<ul style="list-style-type: none"> ▪ Mild/moderate: allow classroom participation ▪ Avoid symptom triggers ▪ If severe, refer to RN office
Dizziness	none	mild	moderate	severe	
Balance Problems	none	mild	moderate	severe	
Tired/Drowsy	none	mild	moderate	severe	
Nausea	none	mild	moderate	severe	
Sensitivity to light	Yes		No		Move away from windows; dim lights/draw shades; allow sunglasses/hat in class
Sensitivity to noise	Yes		No		Remove from loud environment; reduce classroom noise; avoid headphones and loud music
Feeling mentally foggy	Yes		No		Give breaks between tasks; simplify task
Difficulty concentrating on school work	Yes		No		Shorten task duration; give breaks between tasks
Difficulty paying attention to teacher	Yes		No		Front room seating; work in quiet room
Difficulty remembering	Yes		No		Provide class notes; provide memory aides; use alternative testing methods
Difficulty staying organized	Yes		No		Use planner; check comprehension of instructions; “To-Do” lists, checklists

Note what tasks in school are most difficult? (i.e. looking at a computer screen)

Local Physicians

Bronxville School District has compiled this list of local physicians for reference purposes only.

Christi Bevelacqua, MD

Columbia Orthopedics
(212) 305-4565

Farah Hameed, MD

Columbia Orthopedics
(212) 305-4565

Thomas S Bottiglieri, DO

350 Engle Street
Englewood, New Jersey 07631
(201) 894-3690

ImPACT CIC

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34 S. Broadway, Suite 500
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ImPACT CIC

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222 N Westchester Ave., Suite 307
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ImPACT CIC

Gotham City Orthopedics

500 Grand Ave
Englewood, NJ 07631
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ImPACT CIC

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(914) 428-0529

ImPACT CIC

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White Plains, New York 10604
(914) 698-5544

ImPACT CIC

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