



SUMMER TRAINING PROGRAM 2022

Name: _____

Summer miles = November smiles (and February and May too!)

TOWSON CROSS COUNTRY

Summer Training 2022

The three most important months in the Cross Country season are June, July, and August! This program is designed to 1) build the aerobic engine that you will use to train and race, 2) strengthen the chassis that carries the engine to protect against injury and allow for higher training loads and intensities, and 3) prepare you mentally for the demands of high stakes competition. Remember – you can't win a championship over the summer, but you can lose one by not preparing!

The first day of team practice is **Monday, August 15th from 9:00-11:00AM**. Meet by the picnic tables outside the Senior Cafeteria (near the baseball batting cage). You will need:

- proper running attire: shorts, shirt, shoes, and socks (sunscreen is recommended)
- your own water bottle – no sharing. We will have water available for refills.

You must register for Fall Sports online and turn in a completed medical form **BEFORE August 1th**.

- [Click here to register](#) and follow the instructions. You will receive a confirmation email once you have successfully completed registration.
- Follow the directions on the Form ReLeaf website to access, complete, and upload your Physical Exam form, email it to our Athletic Director Justin Nash at jnash3@bcps.org or mail it to:

Justin Nash
Towson High School
69 Cedar Avenue
Towson MD 21286

- Physicals are valid for one year from the **date of the exam** and must be on the approved form.
- **Student-athletes who do not have a completed Physical Exam form on file and/or do not register will not be permitted to practice for fall sports. No exceptions.**

Your goal over the next 10 weeks is to gradually build your weekly mileage to a point where you can train at the totals listed below for 2-3 weeks prior to August 15th. How many miles you should run over the summer varies from person to person based on things like physiology, experience, form, age, growth, and many other variables. A training load that might be perfect for one runner could lead to burnout or an over-use injury in another. However, as a general rule, to get better at cross country you need to need to run **more** than you have in the past.

Freshmen: 25-30 miles per week

Sophomores: 30-40 miles per week

Juniors: 40-50 miles per week

Seniors: 50-60 miles per week

A good approach to a weekly mileage goal is to look at your average weekly mileage during track season – after two weeks rest, you should be able to build back to that level during your first 3 weeks of summer training. Over the next 3 or 4 weeks, gradually increase that number by 20%. Example: let's say a sophomore this year was averaging 40 mpw during the 2022 track season. This athlete's summer training goal would be to get to around 48 mpw ($40 \times 20\% = 8$; $8 + 40 = 48$) by late July. After two weeks of rest, the athlete starts back at 30 mpw (that's an average of 5 miles per day with one day off – of course the plan would not be to run 5 miles per

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day...) An increase from there of 3 miles (10%) per week would get the athlete back to track volume in 3-4 weeks. 3 more weeks adding 3 miles (10%) gets the athlete to 48-49 mpw by the third week in July, allowing for 3 weeks of solid training at that volume before team practices (and workouts) start on August 15th. The training schedule starts on Monday June 6th and ends on Sunday August 14th.

Summer training is simple, but simple ain't easy. It helps to think in binary terms: either you ran today or you didn't; you did LS/LM or the full warm-up before your run and SAM after or you didn't; you did CORE X or you didn't

Hold yourself accountable for your summer preparation and demand accountability from your teammates – commit to making the jump!

Cross Country Training

The 3 mile or 5000 meter race distance in cross country requires significant energy contributions from both the aerobic and the anaerobic systems and is called a **combined zone** race. On average, over the duration of the race, 92% of the energy is supplied by the aerobic system and 8% is provided by the anaerobic system. Obviously, the aerobic system needs considerable attention, but speed and physical and mental strength also play key roles. The components of our summer training are:

- Long Run (aerobic) – LR in calendar [25% or weekly mileage- mildly progressive, focus on good running mechanics]
- Recovery Run (aerobic) – RR in calendar [conversational pace – good form is a must]
- Strength Run (combined) – hill circuits [medium to high intensity]
- Fartlek Runs (combined) – variable pace running [medium to high intensity]
- Strides (combined) – short repeats of faster paced running, usually done after recovery and long runs [medium to high intensity]

Long Runs

Probably the single most important part of our summer training program:

Workout:

- Lunges and Leg Swings
- Long run distance is 20% (beginner) to 25% (experienced) of your mileage total for that week. 20 mpw = one 5 mile Long Run (for beginners). Start at Tinman's Very Easy (beginner) or Easy (experienced) pace for 70% of the run and then do the last 30% at Easy (beginner) to Easy Moderate (experienced) pace. The link to the pace calendar and instructions on how to use it are at the end of this document under General Instructions. Pay close attention to your running mechanics, especially later in the run.
- Strides during the last 5 weeks of the program (see below)
- Elevate legs for 5-8 minutes, SAM Hard Day

Recovery Runs (done on the days between your Long Runs, Hill Runs and Fartleks)

Very important aerobic conditioning days:

Workout:

- Lunges and Leg Swings

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- Do the entire distance at a steady pace, either Tinman’s Very Easy (beginner) or Easy (experienced) pace. The link to the pace calendar and instructions on how to use it are at the end of this document under General Instructions. Pay attention to your running mechanics throughout the run.
- Strides after or incorporate them (see below)
- SAM Easy Day
- Core X: one circuit for beginners, two for experienced runners

Strength Runs (hill circuits)

In cross country, our strength runs are hill repetitions run up a moderate incline. Bonus – doing these on a grass hill will provide additional strength benefits. Find a 200-300 meter hill with a 2-3% grade (about the equivalent of a highway exit ramp)

Workout:

- Full warm-up (from 2022 track) + 1-2 miles at Easy Pace
- run up the hill at a strong but constant effort (remember to keep good form: run tall, drive elbows back, stay on your toes, step over the opposite knee, and drive down into the hill) – start with 4-6 reps and add 2 reps every two weeks
- 4-minute jogging recovery between each uphill run – no walking!
- 3-mile cool-down, elevate legs for 5-8 minutes, SAM Hard Day

Fartlek Runs (fartlek is a Swedish word that literally translates as “speed-play”)

These will develop your ability to sustain faster paced running during the season:

Workout:

- Full warm-up (from 2022 track) + 1 mile warm-up
- Alternate 2 minutes at Easy Pace and 1 minute at Threshold Pace (beginners) or 3 minutes at Easy Pace and 2 minutes at Threshold Pace (experienced). Keep this up until you complete most of the goal mileage. The idea is to build up the faster parts until you are running them at 5K race pace by August.
- Follow with 10 minutes at Easy Pace cool-down, elevate legs for 5-8 minutes
- SAM Hard Day

Strides

Speed is the essence of racing. While endurance is critical in a 3 mile/5k cross country race, the fastest runner always wins the race – fast running is part of every phase of our annual training plan for distance and mid-distance athletes.

Starting in Week 1:

- Do 2-3x (beginners) or 3-5x (experienced) 150-200m strides after your Recovery Runs 3x per week on non-consecutive days, or
- Incorporate 2-3x (beginners) or 3-5x (experienced) 30-40 second periods of faster paced running into the last 10 minutes of your Recovery Runs 3x per week on non-consecutive days
- These are not sprints – they should be done at 800-1600m race pace and followed by at least 5 minutes of Recovery Pace running

Beginning in Week 5, add them to the Long Run.

Also beginning in Week 5, start doing some, or all, of your strides in the grass in your spikes or racers.

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Strength and Mobility Training (SAM) and Core X

Daily core strength, hip strength, and hip mobility training will improve performance, promote efficiency, and protect against injuries.

We use multi-phase Strength and Mobility (SAM) and Core X programs developed by Coach Jay Johnson and Dr. Ron Hansen. We will do SAM every training day during our 10 weeks of Summer Training (no SAM on your off days). Core X is done (with SAM Easy Day) after all Recovery Runs. There are two SAM routines in each phase: Easy Day and Hard Day. Do Easy Day after Recovery Runs and Hard Day after Long Runs, Hills Runs, Fartleks, and Time Trials. Beginners start with SAM Phase 1 for 5 weeks and Phase 2 for 5 weeks. Experienced runners should do Phase 3 for all 10 weeks of summer training. Document

SAM/Core X Tips:

- Watch the YouTube videos for both routines before you attempt the exercises.
- Listen to the commentary by Coach Johnson and Dr. Hansen – proper body position is critical.
- Do these exercises slowly and pay equal attention to the positive and negative phases of each movement. The goal is perfect form for every rep/every movement.

Shin Split Vaccinations: do these as part of your warm-up every training day

- 10 meters heel walking
- 10 meters toe walking
- 10 meters of toe grabs: step forward and reach down to touch/grab the toes with the opposite hand – take two steps and repeat on the other foot
- 10 pogo hops (both feet)
- Start with 1 set of each for the first 5 weeks, then increase to 2 sets of each for the next 5 weeks.

Time Trials

2 miles or 3200m, done on 6/19 and 7/17.

Workout:

- Lunges and Leg Swings + 1 mile (beginner) or 2 mile (experienced) easy pace warm-up and 2-3 short (50-80m strides). Experienced runners can do the race day warm-up if desired.
- Run 2 miles or 3200m at max effort. Record your time.
- Use your cool down to complete your mileage total for the day. Remember at this point you have already run 3-4 miles
- elevate legs for 5-8 minutes, SAM Hard Day

Weekly Training Formula: 1 Long Run/SAM Hard Day, 1 Hill Run/SAM Hard Day, 1 Fartlek Run/SAM Hard Day, 3 Recovery Runs/Strides/SAM Easy Day/Core X, one day off. Do the LR, Hill Run, and Fartlek on non-consecutive days.

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Training Calendar: 10 weeks of 7 days each. One off day per micro cycle. Don't take more than one day off per week unless you are injured or ill. Record what you did on the line for that day, total miles, SAM and Core X.

Week 1

Sample Day: Recovery Run + 4 strides **5 miles SAM 3E Core X yes**

6/6 – Mon: _____ miles SAM ___ Core X ___

6/7 – Tue: _____ miles SAM ___ Core X ___

6/8 – Wed: _____ miles SAM ___ Core X ___

6/9 – Thu: _____ miles SAM ___ Core X ___

6/10 – Fri: _____ miles SAM ___ Core X ___

6/11 – Sat: _____ miles SAM ___ Core X ___

6/12 – Sun: _____ miles SAM ___ Core X ___

Mileage: _____

Week 2

6/13 – Mon: _____ miles SAM ___ Core X ___

6/14 – Tue: _____ miles SAM ___ Core X ___

6/15 – Wed: _____ miles SAM ___ Core X ___

6/16 – Thu: _____ miles SAM ___ Core X ___

6/17 – Fri: 3200m/2 mile Time Trial: _____ miles SAM ___ Core X ___

6/18 – Sat: _____ miles SAM ___ Core X ___

6/19 – Sun: _____ miles SAM ___ Core X ___

Mileage: _____

Week 3

6/20 – Mon: _____ miles SAM ___ Core X ___

6/21 – Tue: _____ miles SAM ___ Core X ___

6/22 – Wed: _____ miles SAM ___ Core X ___

6/23 – Thu: _____ miles SAM ___ Core X ___

6/24 – Fri: _____ miles SAM ___ Core X ___

6/25 – Sat: _____ miles SAM ___ Core X ___

6/26 – Sun: _____ miles SAM ___ Core X ___

Mileage: _____

Week 4

6/27 – Mon: _____ miles SAM ___ Core X ___

6/28 – Tue: _____ miles SAM ___ Core X ___

6/29 – Wed: _____ miles SAM ___ Core X ___

6/30 – Thu: _____ miles SAM ___ Core X ___

7/1 – Fri: _____ miles SAM ___ Core X ___

7/2 – Sat: _____ miles SAM ___ Core X ___

7/3 – Sun: _____ miles SAM ___ Core X ___

Mileage: _____

Week 5

7/4 – Mon: _____ miles SAM ___ Core X ___

7/5 – Tue: _____ miles SAM ___ Core X ___

7/6 – Wed: _____ miles SAM ___ Core X ___

7/7 – Thu: _____ miles SAM ___ Core X ___

7/8 – Fri: _____ miles SAM ___ Core X ___

7/9 – Sat: _____ miles SAM ___ Core X ___

7/10 – Sun: _____ miles SAM ___ Core X ___

Mileage: _____

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Week 6

7/11 – Mon: _____ miles SAM ___ Core X ___
 7/12 – Tue: _____ miles SAM ___ Core X ___
 7/13 – Wed: _____ miles SAM ___ Core X ___
 7/14 – Thu: _____ miles SAM ___ Core X ___
 7/15 – Fri: 3200m/2 mile Time Trial: _____ miles SAM ___ Core X ___
 7/16 – Sat: _____ miles SAM ___ Core X ___
 7/17 – Sun: _____ miles SAM ___ Core X ___
 Mileage: _____

Week 7

7/18 – Mon: _____ miles SAM ___ Core X ___
 7/19 – Tue: _____ miles SAM ___ Core X ___
 7/20 – Wed: _____ miles SAM ___ Core X ___
 7/21 – Thu: _____ miles SAM ___ Core X ___
 7/22 – Fri: _____ miles SAM ___ Core X ___
 7/23 – Sat: _____ miles SAM ___ Core X ___
 7/24 – Sun: _____ miles SAM ___ Core X ___
 Mileage: _____

Week 8

7/25 – Mon: _____ miles SAM ___ Core X ___
 7/26 – Tue: _____ miles SAM ___ Core X ___
 7/27 – Wed: _____ miles SAM ___ Core X ___
 7/28 – Thu: _____ miles SAM ___ Core X ___
 7/29 – Fri: _____ miles SAM ___ Core X ___
 7/30 – Sat: _____ miles SAM ___ Core X ___
 7/31 – Sun: _____ miles SAM ___ Core X ___
 Mileage: _____

Week 9

8/1 – Mon: _____ miles SAM ___ Core X ___
 8/2 – Tue: _____ miles SAM ___ Core X ___
 8/3 – Wed: _____ miles SAM ___ Core X ___
 8/4 – Thu: _____ miles SAM ___ Core X ___
 8/5 – Fri: _____ miles SAM ___ Core X ___
 8/6 – Sat: _____ miles SAM ___ Core X ___
 8/7 – Sun: _____ miles SAM ___ Core X ___
 Mileage: _____

Week 10

8/8 – Mon: _____ miles SAM ___ Core X ___
 8/9 – Tue: _____ miles SAM ___ Core X ___
 8/10 – Wed: _____ miles SAM ___ Core X ___
 8/11 – Thu: _____ miles SAM ___ Core X ___
 8/12 – Fri: _____ miles SAM ___ Core X ___
 8/13 – Sat: _____ miles SAM ___ Core X ___
 8/14 – Sun: _____ miles SAM ___ Core X ___
 Mileage: _____

Woohoo! You did it! Save your completed log so you can show it to your teammates and coaches when practice starts and for reference next year.

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General Instructions

- **Get a pair of proper running shoes and use them for running only.** Charm City Run, Falls Road Running Store, or Holabird Sports are good places to look for shoes. Tell the salesperson that you are a high school cross country runner, and you need training shoes. If you need to replace your racing shoes, we will have a team night (with discounts) at one of the local stores during the first two weeks of team practices. We recommend 100% wool or synthetic socks for running (cotton will cause blisters as will wearing dirty socks). Experienced runners should check their spikes or racing flats and see if they will need to be replaced at the beginning of the season.
- run early or later in the day when it is cooler. Avoid running during the hottest part of the day (10am-2pm) if possible. Wear sunscreen. Run with teammates when you can - together everyone achieves more!
- **stay hydrated. The best thing to drink before, during, and after your run is water but it's good to mix in an electrolyte replacement drink too.**
- on Recovery Run days – do Leg Swings <https://www.youtube.com/watch?v=korxBhGzzJE>, the Lunge Matrix https://www.youtube.com/watch?v=GJo7_MiRLkU&t=50s and Shinsplint Vaccinations.
- **on Workout Days (long runs, hills and fartleks) – do the new warm-up from track (next page) and strides if indicated. After the workout, jog for the stated cool-down distance at Recovery Run pace, elevate, and do your SAM for the day. You can find a link to the warm-up video at www.coachjayjohnson.com but you may need to complete a free registration to view it.**
- To find your ideal training paces, plug your most recent time trial time into Tom Tinman's Running Calculator <http://www.runfastcoach.com/calc2/> Then go to the Training Paces tab. Recovery Runs should be done at or near your Easy Pace (beginners should start at Very Easy). Long runs should start at Very Easy/Easy for 70% of the run and then progress to Easy/Easy Moderate for the last 30%.
- **If you want to run an occasional road race (5k) as a test or for fun, substitute the race for one of your time trials, but do not run more than one race during any 21-day period. (This applies to races that you run all out – if you are running the races at your training pace for that day, there is no need to change anything, simply pay attention to your mileage for that day. Example: on the first Saturday of the week, you decide to run a local 5k for fun – not as a race, but at your recovery pace. Since a 5k is only 3.1 miles, be sure to make-up the missing 4-5 miles as part of your warm-up and cool-down. DO NOT OVER RACE DURING THE SUMMER - YOU IMPROVE BY TRAINING, NOT BY RACING.**

Pay close attention to your hydration, diet, and sleep patterns. Summer is a great time to develop good habits and positive practices to carry through the season and school year.

Spend some time this summer thinking about and discussing the following with your teammates:

- Why do I want to run Cross Country this year?
- What are my goals for the season?
- What should be our team goals for the season?
- What can I do this summer to help the team achieve our season goals?
- What can I do to help build a culture of responsibility, accountability, and success?
- What can I do to be a more responsible, accountable, and successful teammate?
- How can I support my teammates?

Train smart, be careful, have fun and we will see you in August!!!

Got questions?

Email Coach Stange at gstange@bcps.org or Coach McShane at lmcshane3@bcps.org

(ignore the out of office messages)

Follow us on Twitter @TowsonXCTF

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Do this preparation routine before workout days (Long Runs, Hills, Fartleks). Perform the following movements as directed with intention and focus. They are an essential part of our training program. Warm-up time is an important transition from non-running to running and team activities – not a time for catching up with what happened today, idle chatter, or fooling around.

Part 1 – 20 meters of each or as indicated

1. Low skips with arms swinging forward
2. Low skips with arms swinging backward
3. Low skips with arms crossing
4. Low skip with alternating 360° twists
5. Backwards walk with reach step
6. Backwards low skip
7. Butt kicks
8. Lateral shuffles x 2 (both directions)
9. Side skips with arms overhead (jumping jacks) x 2 (both directions)
10. Single leg quick skip x 2 (20m each of left foot and right foot)
11. Alternating quick skip

Part 2 – 8 reps of each or 8 reps on each side for bilateral movements. Do these on grass or the turf.

1. Leg swings (straight leg side-to-side, straight leg forward-and-back, hurdle trail leg forward, hurdle trail leg backward [keep knee above toe], bent leg forward-and-back, bent leg side-to-side)
2. Alternating high kicks to opposite hand
3. Side bends with arm stretches
4. Cat-Cows
5. Cat-Cobra
6. Reach through-Reach up (eyes follow the reaching hand)
7. Fire Hydrants
8. Donkey Kicks
9. Low Whips (toe touches ground on each side)

Part 3 – 20 meters of each or as indicated

1. A-March (vertical emphasis: high knees – knee up, toe up, heel up, step over your opposite knee, contact ground directly under hips)
2. A-skips (same movement as above but skipping, ground contact under hips)
3. B-march (horizontal emphasis: lift knee then block at 90° and drive down – lower leg swings out forward of knee, ground contact slightly forward of hips and “clawing back”)
4. B-skips (same as above but skipping, ground contact under hips)
5. 20m Ankle dribbles x 2 (truncated running movement: emphasize ankle flex and heel-to-toe roll, step over the opposite ankle or like going up 6” stairs)

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<TENTATIVE> 2022 MEET SCHEDULE

<u>Day</u>	<u>Date</u>	<u>Time</u>	<u>Meet</u>	<u>Site</u>
Saturday	September 3	9:00am	Catonsville, Dulaney, Franklin, Hereford, Loch Raven, Parkville, Pikesville, Towson	Hereford
Saturday	September 10	9:30am	39th Barnhart Invitational	Dulaney HS
Wednesday	September 14	3:45pm	Carver, Catonsville, Dulaney, Parkville, Towson	Dulaney
Saturday	September 17	8:30am	Bull Run Invitational	Hereford HS
Wednesday	September 21	3:45pm	Carver, Dulaney, Loch Raven, Hereford, Towson	HOME **Senior Day**
Wednesday	September 28	3:45pm	Catonsville, Dulaney, Dundalk, Franklin, Kenwood, Parkville, Patapsco, Perry Hall, Towson	Catonsville HS
Saturday	October 8	8:30am	Maryland XC Invitational	Shawan Downs
Wednesday	October 12	3:45pm	Dulaney, Dundalk, Kenwood, Parkville, Perry Hall, Towson	Parkville HS
Saturday	October 15	9:30am	Gunpowder Invitational	Jerusalem Mills
Saturday	October 22	9:30am	County Championships	Dulaney HS
Thursday	November 3	3:00pm	3A North Regional Championships	TBA
Saturday	November 12	8:00am	3A State Championships	Hereford HS

Home Meets, Invitationals, and Championships are listed in bold. Varsity team members should be available for ALL invitationals and championships (barring emergencies). Make the commitment!

Times are for coaches' meetings – bus and race times will be communicated separately.

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