



**Spring 2022 article and quiz for 1 FNB CEC**

Read the Article: [Stretching and injury prevention: An obscure relationship](#)

Answer the questions below, save the document to your computer and submit to:  
[executivedirector@fitnessnb.ca](mailto:executivedirector@fitnessnb.ca) on or before July 29, 2022

**Please Note:** If using Firefox or Google Chrome you will need to convert to a fillable form:  
Left click on download (top right corner third Icon). Choose Adobe Reader and wait for converted form.

Name:

Date (mm-dd-yyy):

1. Stretching programs can significantly influence the viscosity of the tendon and make it significantly more compliant, which may be important for injury prevention in what kind of sports?
  - a) Sports involving cardio
  - b) Team sports
  - c) Sports involving repetitive movements
  - d) Sports involving stretch-shortening cycles (SSC)
  
2. What kind of contraction allows the muscle-tendon units to store mechanical work as elastic energy?
  - a) Concentric
  - b) Eccentric
  
3. What kind of performance does compliant muscles performed better than stiff muscles?
  - a) Concentric
  - b) Eccentric
  - c) Isometric
  - d) All the above
  
4. True or false: The more compliant the muscle-tendon unit, the faster the force is transfer to the bones, and the resulting movement of the joint is quicker?
  - a) True
  - b) False

5. As tendon stiffness increases, greater \_\_\_\_\_ are generated within the muscle?
- a) Energy absorbing capabilities
  - b) Risks of injury
  - c) Passive forces
  - d) Concentric forces
6. What was the percentage of fewer injuries found in the group of elite soccer teams that had a routine of warm up and stretching?
- a) 40%
  - b) 50%
  - c) 25%
  - d) 75%
7. In an athletic population, what may contribute to the development of patellar tendinosis?
- a) Lower flexibility in the quadriceps and hamstrings
  - b) Lower flexibility in the hamstrings
  - c) Too much flexibility in the quadriceps
  - d) Lower flexibility in the glutes
8. What are examples of sports involving low frequency of SSC movements?
- a) Cycling
  - b) Swimming
  - c) Jogging
  - d) *a and b*
9. Why is the risk of tendon or muscle damage relatively low for sports with low SSC?
- a) The minimum energy-absorbing capacity is very low
  - b) The maximal energy-absorbing capacity is more likely to be exceeded
  - c) The maximal energy-absorbing capacity is less likely to be exceeded
  - d) They are easier sports
10. Athletes in sports with no or low SSC movements don't stretch much, why so?
- a) A compliant tendon would be less adapted and efficient in these kind of sports
  - b) Stretching would increase the risk of injuries in these kind of sports
  - c) A stiff tendon decreases the risk of injuries
  - d) Stretching is useless