Question 5

The insulin analogue lispro (humalog) has a more immediate onset of action than regular human insulin. This is because lispro:

A. is a smaller sized molecule
B. is more lipophilic
C. does not form hexamers subcutaneously
D. has greater affinity for the insulin receptor
E. is less protein-bound

Lispro
- 1st commercially available short acting analog
- Absorbed 3 times more rapidly from subcutaneous sites than human insulin
- Unlike regular insulin, lispro exists as a hexamer in commercially available formulations. Unlike regular insulin, lispro dissociates into monomers almost instantaneously following injection. This property results in the characteristic rapid absorption and shorter duration of action compared to regular insulin.
- Answer C