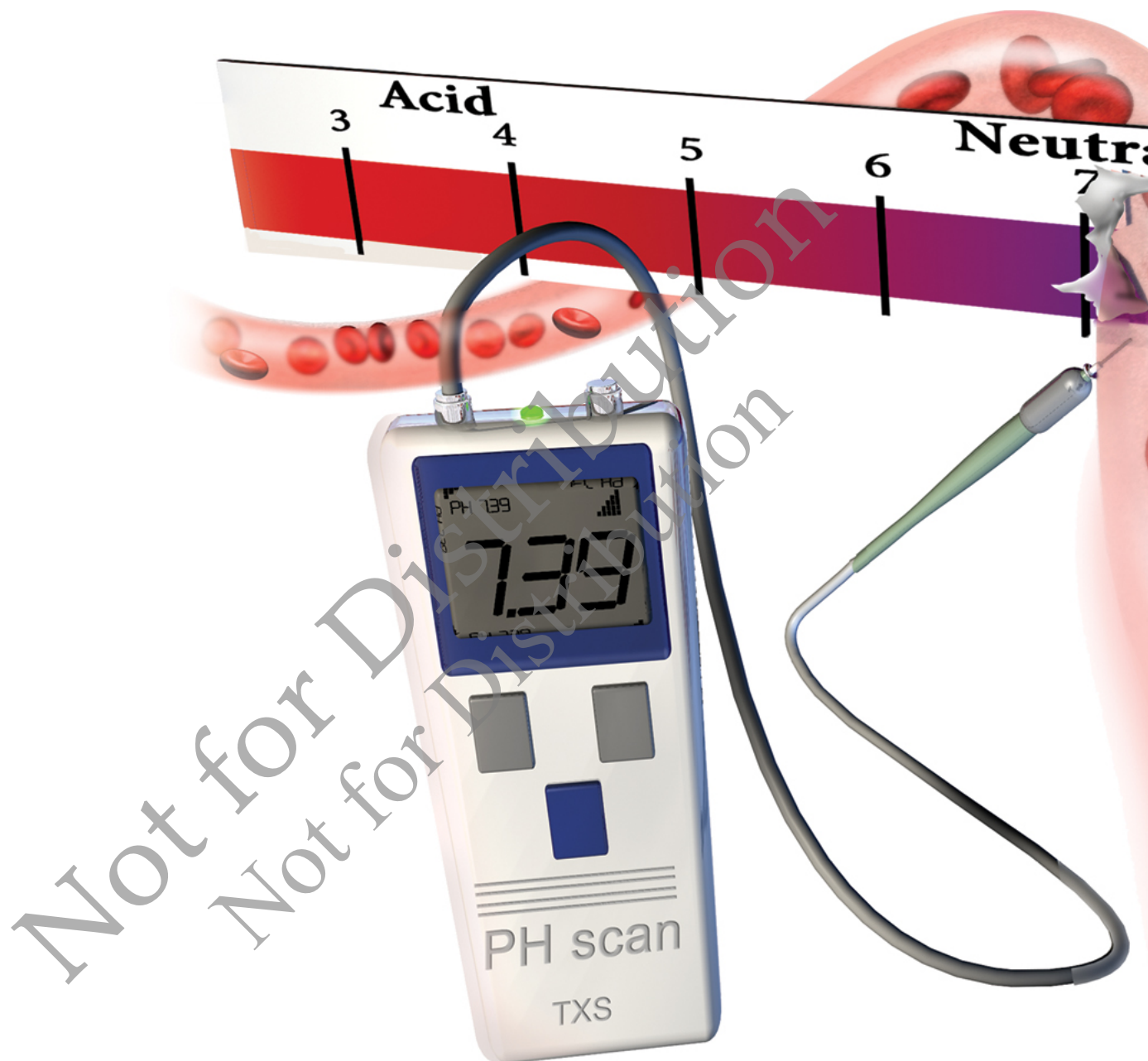


## Chapter 17

### Aqueous Ionic Equilibrium



Human blood is held at nearly constant pH by the action of buffers, a main topic of this chapter.

"In the strictly scientific sense of the word, insolubility does not exist, and even those substances characterized by the most absolute resistance to the solvent action of water may actually be designated as extremely difficultly soluble."

obstinate resistance to the solvent action of water may properly be designated as extraordinarily difficult solution, not as

insoluble."

—*Otto N. Witt (1853–1915)*



## Learning Outcomes

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- 17.1 The Danger of Antifreeze
- 17.2 Buffers: Solutions That Resist pH Change
- 17.3 Buffer Effectiveness: Buffer Range and Buffer Capacity
- 17.4 Titrations and pH Curves
- 17.5 Solubility Equilibria and the Solubility-Product Constant
- 17.6 Precipitation

Not for Distribution