

EVALUATION OF EQUINE EMBRYOS

DEVELOPMENTAL STAGE

Stage	Size (µm)	Description
Morula	150 to 200 µm	Solid mass of blastomeres; thick zona pellucida; blastomeres initially large and individually identifiable; compact aggregate of smaller blastomeres later; outer edge of blastomeres gives a 'serrated' appearance; perivitelline space may be evident between blastomeres and zona pellucida; rolls when manipulated
Early Blastocyst	150 to 250 µm	Thick zona pellucida; blastocoele cavity beginning to form between blastomeres; minimal perivitelline space; size similar to morula
Blastocyst	150 to 300 µm	Blastocoele cavity surrounded by a layer of trophoblast cells; distinct inner cell mass; capsule evident between trophoblast layer and zona pellucida; zona pellucida thin
Expanded Blastocyst	300 to > 1,000 µm	Large blastocoele cavity surrounded by a thin layer of trophoblast cells; trophoblast cells small and uniform in appearance; distinct inner cell mass protruding into blastocoele; zona pellucida may still be present or may have been shed; capsule may be adherent to embryo or slightly detached; embryo diameter is dependent on age
Unfertilized oocyte (UFO)	125 to 150 µm	Thick zona pellucida; oval in shape; flat; does not roll on manipulation; cell membrane and cytoplasm may be degenerated or fragmented

