Immediate early genes are the first to be switched on after tissue damage and they activate a cascade of gene transcription.

- Front line epithelium starts to close.

- E.g., proteases switched on, needed for remodelling of ECM.

(Chronic wounds = deregulation of proteases and their inhibitors)

- Also genes switched on to protect cells against free radicals fired by neutrophils.

Need caution with gene switches: if cells migrate and proliferate away from basement membrane = cancer.

- Some wound genes need to be epigenetically 'unsilenced'
  - unsilence promoter regions at wound edge, of genes normally silent as cancer genes.