Add basal insulin
Choice of basal insulin should be based on person-specific considerations, including cost. Refer to Table 9.3 for insulin cost information.

Add basal analog or bedtime NPH insulin

Assess adequacy of basal insulin dose
Consider clinical signals to evaluate for overbasalization and need to consider adjunctive therapies (e.g., basal dose >0.5 IU/kg, elevated bedtime-morning and/or post-preprandial differential, hypoglycemia [aware or unaware], high variability)

Add prandial insulin
Usually one dose with the largest meal or meal with the greatest PPG excursion; prandial insulin can be dosed individually or mixed with NPH as appropriate

Initiation: Start 10 IU a day OR 0.1-0.2 IU/kg a day

Titrations:
- Set FPG target (see Section 6: Glycemic Targets)
- Choose evidenced-based titration algorithm, e.g., increase 2 units every 3 days to reach FPG target without hypoglycemia
- For hypoglycemia determine cause, if no clear reason lower dose by 10-20%

If above A1C target
Initiation: 4 IU a day or 10% of basal insulin dose
Titrations:
- Increase dose by 1-2 IU or 10-15% twice weekly
- If A1C <8% (64 mmol/mol) consider lowering the basal dose by 4 IU a day
- For hypoglycemia determine cause, if no clear reason lower corresponding dose by 10-20%
If above A1C target

**If on bedtime NPH, consider converting to twice-daily NPH regimen**

Conversion based on individual needs, glycemic control. The following is one possible approach:

**INITIATION:**
- Total dose = 80% of current NPH dose
- 2/3 given in the morning
- 1/3 given at bedtime

**TITRATION:** Titrate based on individualized needs

**Consider self-mixed/split insulin regimen**

*Can adjust NPH and short/rapid-acting insulins separately*

**INITIATION:**
- Total NPH dose = 80% of current NPH dose
- 2/3 given before breakfast
- 1/3 given before dinner
- Add 4 IU of short/rapid-acting insulin to each injection or 10% of reduced NPH dose

**TITRATION:**
- Titrate each component of the regimen based on individualized needs

**Consider twice daily premix insulin regimen**

**INITIATION:**
- Usually unit per unit at the same total insulin dose, but may require adjustment to individual needs

**TITRATION:**
- Titrate based on individualized needs

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1. Consider insulin as the first injectable if evidence of ongoing catabolism, symptoms of hyperglycemia are present, when A1C levels (>10% [86mmol/mol]) or blood glucose levels (≥300mg/dL [16.7mmol/L]) are very high, or a diagnosis of type 1 diabetes is a possibility.

2. When selecting GLP-1 RA, consider: individual preference, A1C lowering, weight-lowering effect, or frequency of injection. If CVD, consider GLP-1 RA with proven CVD benefit. Oral or injectable GLP-1 RA are appropriate.

3. For those on GLP-1 RA and basal insulin combination, consider using a fixed-ratio combination product (iDegLira or iGlarLixi).

4. Consider switching from evening NPH to a basal analog if there is hypoglycemia and/or the individual frequently forgets to administer NPH in the evening and would be better with an AM dose of long-acting basal insulin

5. If adding prandial insulin to NPH, consider initiation of a self-mixed or premixed insulin regimen to decrease the number of injections required.

**ADA Standards of Care 2021 Figure 9.2 – Intensifying to injectable therapies. DSMES, diabetes self-management education and support; FPG, fasting plasma glucose; FRC, fixed-ratio combination; GLP-1RA, glucagon-like peptide 1 receptor agonist; max, maximum; PPG, postprandial glucose. Adapted from Davies et al. (33).**