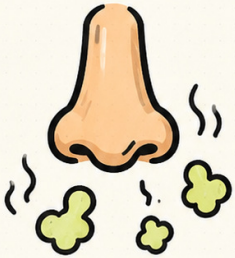
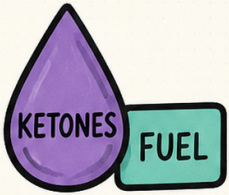
BIOCHEM BUZZWORDS

the fastest clues

USMLE high yield





THE FASTEST CLUES

clue → answer

1	Musty odor + fair skin	→	PKU
2	Maple-syrup odor	→	MSUD
3	Black urine on standing	→	Alkaptonuria
4	Self-injury + gout	→	Lesch-Nyhan
5	Cherry-red macula, no organomegaly	→	Tay-Sachs
6	Fasting hypoglycemia, no ketones	→	FA oxidation defect

AMINO ACID CLUES

odor + urine clues

1 PKU

musty odor + fair skin

phenylalanine hydroxylase defect

2 MSUD

maple-syrup odor

branched-chain α-ketoacid dehydrogenase defect

3 ALKAPTONURIA

black urine on standing

homogentisate oxidase defect

ochronosis

PEARL: musty = PKU, maple = MSUD, black urine = alkaptonuria

HIGH-YIELD CLUES

the other big ones

4

LESCH-NYHAN

self-injury + gout
HGPRT deficiency
↑ uric acid

5

TAY-SACHS

cherry-red macula
no organomegaly
hexosaminidase A defect

6

FA OXIDATION DEFECT

fasting hypoglycemia
no ketones
think MCAD or carnitine problem

PEARL: low sugar + no ketones = fatty-acid oxidation problem

DON'T MIX THESE UP

the classic traps

CHERRY-RED MACULA

no organomegaly	hepatosplenomegaly
↓	↓
Tay-Sachs	Niemann-Pick

LOW SUGAR

no ketones	exercise cramps + no lactate rise
↓	↓
FA oxidation defect	McArdle

GOUT + NEURO CLUE

self-injury	SCID
↓	↓
Lesch-Nyhan	ADA deficiency

PEARL: the extra clue is what wins the question

MEMORY TRICKS

lock in the buzzwords

1. **MUSTY**
   think PKU
2. **MAPLE**
   think MSUD
3. **BLACK URINE**
   think alkaptonuria
4. **SELF-INJURY**
   think Lesch-Nyhan
5. **CHERRY-RED**
   think Tay-Sachs
6. **NO KETONES**
   think FA oxidation defect

PEARL: if the clue sounds weird, it is probably the answer